



**FEDERAL AVIATION ADMINISTRATION
AIRWORTHINESS DIRECTIVES**

LARGE AIRCRAFT

BIWEEKLY 2000-02

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**U.S. Department of Transportation
Federal Aviation Administration**

**Regulatory Support Division
Airworthiness Programs Branch, AFS-610
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LARGE AIRCRAFT

AD No.	Information	Manufacturer	Applicability
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Info: E - Emergency; COR - Correction; S - Supersedes; R - Revision; + - See AD for additional information.

Biweekly 2000-01

99-27-01		Pratt & Whitney	Engine: JT8D-209, -217, -217A, -217C, and -219
99-27-03		Fokker	F27 Mark 050 Series
99-27-04		Rolls-Royce	Engine: Dart 506, 510, 511, 514, 525, 526, 529, 530, +
99-27-05		Boeing	767-200, -300, and -300F Series
99-27-06		Boeing	757-200, -200PF, and -200CB Series
99-27-07	S 98-25-53	Airbus	A300 B4-600R and A300 F4-600R Series
99-27-08		SAAB	SAAB SF340A and SAAB 340B Series
99-27-09		Airbus	A300 B4-203 Series
99-27-10		Airbus	A310 and A300-600 Series
99-27-11		British Aerospace	BAC 1-11 200 and 400 Series
99-27-13		Fokker	F27 Mark 050 Series
99-27-14	S 99-01-15	Airbus	A340-211, -212-, -213, -311, -312, and -313 Series
99-27-15		General Electric	Engine: GE90-76B, -77B, -85B, -90B, and -92B
99-27-16		CFE	Engine: CFE738-1-1B
2000-01-51	E	Bombardier	CL-600-2B16 (CL-604)

Biweekly 2000-02

98-19-15 R1	R 98-19-15	Fairchild	SA226-T, SA226-T(B), SA226-AT, SA226-TC +
99-26-21		Boeing	737-300, -400, -500, -600, -700, and -800 Series
2000-01-01		Airbus	A300 B2-1A, B2-1C, B2-203, B2K-3C, B4-103, B4-2C +
2000-01-02		Raytheon	BAe.125 Series 1000A and 1000B and Hawker 1000 Series
2000-01-03		SAAB	SAAB 2000 Series
2000-01-04		SAAB	SAAB 2000 Series
2000-01-07		Bombardier	DHC-8-100, -200, and -300 Series
2000-01-08		British Aerospace	ATP
2000-01-09		General Electric	Engine: CJ610 Series and CF700 Series
2000-01-12	S 97-14-11	Bombardier	CL-600-2B19 (Regional Jet Series 100) Series
2000-01-13	S 99-08-12	Pratt & Whitney	Engine: JT9D-7, -7A, -7H, -7AH, -7F, -7J, -20, -20J +
2000-01-14		Boeing	777 Series
2000-01-15		Fokker	F27 Mark 050 Series
2000-01-17		McDonnell Douglas	MD-90 Series
2000-01-18		McDonnell Douglas	DC-8 Series
2000-01-51		Bombardier	CL-604 variant of Canadair Model CL-600-2B16 Series
2000-02-01		McDonnell Douglas	DC-8 Series
2000-02-02		Short Brothers	SD3-60 SHERPA, SD3-SHERPA Series and SD3-30 Series
2000-02-03		Boeing	737-300, -400, and -500 Series
2000-02-04		Airbus	A300 Series, A300-600, and A310 Series
2000-02-13		Bombardier	DHC-8-100, -200, and -300 Series

**FAIRCHILD AIRCRAFT INC
AIRWORTHINESS DIRECTIVE
LARGE AIRCRAFT**

98-19-15 R1 FAIRCHILD AIRCRAFT, INC.: Amendment 39-11507; Docket No. 98-CE-84-AD, Revises AD 98-19-15, Amendment 39-10794.

Applicability: Models SA226-T, SA226-T(B), SA226-AT, SA226-TC, SA227-TT, SA227-AT, SA227-AC, SA227-BC, SA227-CC, and SA227-DC airplanes, all serial numbers, certificated in any category; that are equipped with Barber-Colman pitch trim actuators, part number (P/N) 27-19008-001/-004 or P/N 27-19008-002/-005.

NOTE 1: This AD applies to each airplane identified in the preceding applicability provision, regardless of whether it has been modified, altered, or repaired in the area subject to the requirements of this AD. For airplanes that have been modified, altered, or repaired so that the performance of the requirements of this AD is affected, the owner/operator must request approval for an alternative method of compliance in accordance with paragraph (e) of this AD. The request should include an assessment of the effect of the modification, alteration, or repair on the unsafe condition addressed by this AD; and, if the unsafe condition has not been eliminated, the request should include specific proposed actions to address it.

Compliance: Required as indicated in the body of this AD, unless already accomplished or made unnecessary by replacement of the P/N 27-19008-001/-004 or P/N 27-19008-002/-005 Barber-Colman pitch trim actuator with a Simmonds-Precision actuator, P/N DL5040M5, P/N DL5040M6, or P/N DL5040M8; or a Barber-Colman actuator, P/N 27-19008-006 or P/N 27-19008-007.

To lessen the possibility of airplane pitch up caused by mechanical failure of the pitch trim actuator, which could result in a pitch upset and structural failure of the airplane, accomplish the following:

(a) Prior to further flight after September 25, 1998 (the effective date of AD 98-19-15), revise the FAA-approved Airplane Flight Manual (AFM) by incorporating the following into the Limitations Section of the AFM. This may be accomplished by inserting a copy of this AD into the AFM:

- “Limit the maximum indicated airspeed to maneuvering airspeed (Va) as shown in the appropriate airplane flight manual (AFM).”

and

- “The minimum crew required is two pilots.”

NOTE 2: Fairchild Service Letter 226-SL-017, Fairchild Service Letter 227-SL-033, and Fairchild Service Letter CC7-SL-023, all FAA Approved: August 26, 1998; Revised: September 2, 1998; address the subject matter of this AD.

NOTE 3: The prior to further flight compliance time of paragraph (a) of this AD is being retained from AD 98-19-15. The only substantive difference between this AD and AD 98-19-15 is the addition of the alternative method of compliance referenced in paragraph (c) of this AD.

(b) Incorporating the AFM revision, as specified in paragraph (a) of this AD, may be performed by the owner/operator holding at least a private pilot certificate as authorized by section 43.7 of the Federal Aviation Regulations (14 CFR 43.7), and must be entered into the aircraft records showing compliance with this AD in accordance with section 43.9 of the Federal Aviation Regulations (14 CFR 43.9).

NOTE 4: This AD does not affect AD 97-23-01, Amendment 39-10188 (62 FR 5922, November 3, 1997). AD 97-23-01 still applies to all SA226 and SA227 series airplanes equipped with either Barber-Colman or Simmonds-Precision pitch trim actuators. AD 97-23-01 will be superseded to cover the improved design pitch trim actuators referenced in paragraphs (c)(1), (c)(2), and (c)(3) of this AD. AD 97-23-01 requires the following:

- repetitively measuring the freeplay of the pitch trim actuator and repetitively inspecting the actuator for rod slippage or ratcheting;
- immediately replacing any actuator if certain freeplay limitations are exceeded or rod slippage or ratcheting is evident; and
- eventually replacing the Simmonds-Precision actuators regardless of the inspection results.

(c) As an alternative method of compliance to the requirements of this AD, replace each of the P/N 27-19008-001/-004 or P/N 27-19008-002/-005 Barber-Colman pitch trim actuators with one of the following, or FAA-approved equivalent part number:

- (1) Barber-Colman P/N 27-19008-006 or P/N 27-19008-007 pitch trim actuators. Procedures to install these pitch trim actuators are contained in Fairchild Service Bulletin 226-27-064, Fairchild Service Bulletin 227-27-046, and Fairchild Service Bulletin CC7-27-015. All airplane models are eligible for this installation and airplane models vary by service bulletin;

(2) Simmonds-Precision P/N DL5040M5 or P/N DL5040M6 pitch trim actuators. All airplane models are eligible for this installation. Procedures and limitations to install these pitch trim actuators for the Models SA227-CC and SA227-DC airplanes are contained in Fairchild Service Bulletin CC7-27-014, and are contained in engineering data for all other models (contact Fairchild); or

(3) Simmonds-Precision P/N DL5040M8 pitch trim actuators. Procedures and limitations to install these pitch trim actuators are contained in Fairchild Service Bulletin 227-27-045, Fairchild Service Bulletin 226-27-063, and Fairchild Service Bulletin CC7-27-013. All airplane models are eligible for this installation and airplane models vary by service bulletin.

(d) Special flight permits may be issued in accordance with sections 21.197 and 21.199 of the Federal Aviation Regulations (14 CFR 21.197 and 21.199) to operate the airplane to a location where the requirements of this AD can be accomplished.

(e) An alternative method of compliance or adjustment of the compliance time that provides an equivalent level of safety may be approved by the Manager, Fort Worth Airplane Certification Office (ACO), FAA, 2601 Meacham Boulevard, Fort Worth, Texas 76193-0150.

(1) The request shall be forwarded through an appropriate FAA Maintenance Inspector, who may add comments and then send it to the Manager, Fort Worth ACO.

(2) Alternative methods of compliance approved in accordance with AD 98-19-15 are considered approved as alternative methods of compliance for this AD.

NOTE 5: Information concerning the existence of approved alternative methods of compliance with this AD, if any, may be obtained from the Fort Worth ACO.

(f) All persons affected by this directive may obtain copies of the documents referred to herein upon request to Fairchild Aircraft, P.O. Box 790490, San Antonio, Texas 78279-0490; or may examine these documents at the FAA, Central Region, Office of the Regional Counsel, 901 Locust, Room 506, Kansas City, Missouri 64106.

(g) This amendment becomes effective on March 3, 2000.

FOR FURTHER INFORMATION CONTACT:

Mr. Werner G. Koch, Aerospace Engineer, FAA, Aircraft Certification Office, 2601 Meacham Boulevard, Fort Worth, Texas 76193-0150; telephone: (817) 222-5133; facsimile: (817) 222-5960.

Issued in Kansas City, Missouri, on January 4, 2000.

Michael Gallagher, Manager, Small Airplane Directorate, Aircraft Certification Service.

**THE BOEING COMPANY
AIRWORTHINESS DIRECTIVE
LARGE AIRCRAFT**

99-26-21 BOEING: Amendment 39-11480. Docket 99-NM-342-AD.

Applicability: Model 737-300, -400, and -500 series airplanes, as listed in Boeing Alert Service Bulletin 737-29A1076, Revision 1, dated October 21, 1999; and Model 737-600, -700, and -800 series airplanes, as listed in Boeing Alert Service Bulletin 737-29A1077, Revision 1, dated October 21, 1999; certificated in any category.

NOTE 1: This AD applies to each airplane identified in the preceding applicability provision, regardless of whether it has been modified, altered, or repaired in the area subject to the requirements of this AD. For airplanes that have been modified, altered, or repaired so that the performance of the requirements of this AD is affected, the owner/operator must request approval for an alternative method of compliance in accordance with paragraph (e) of this AD. The request should include an assessment of the effect of the modification, alteration, or repair on the unsafe condition addressed by this AD; and, if the unsafe condition has not been eliminated, the request should include specific proposed actions to address it.

Compliance: Required as indicated, unless accomplished previously.

To prevent electrical arcing due to chafing between certain hydraulic hoses and adjacent wire bundles, which could result in a consequent increased risk of fire; accomplish the following:

Actions for Model 737-300, -400, and -500 Series Airplanes

(a) For certain Model 737-300, -400, and -500 series airplanes on which the actions specified by Boeing Alert Service Bulletin 737-29A1076, dated April 2, 1998, have not been accomplished: Within 90 days after the effective date of this AD, perform a one-time detailed visual inspection of wire bundle W0334 and the hydraulic case drain and pressure hoses for the electric motor driven pump (EMDP) for hydraulic system "B" to detect any discrepancy (e.g., damage or chafing of wire bundle W0334 and the hydraulic case drain and pressure hoses, and incorrect separation between those components), in accordance with Part 1 of the Accomplishment Instructions of Boeing Alert Service Bulletin 737-29A1076, Revision 1, dated October 21, 1999.

(1) If no discrepancy is found, no further action is required by this paragraph.

(2) If any discrepancy is found, prior to further flight, perform corrective actions in accordance with Part 1 of the Accomplishment Instructions of the alert service bulletin.

NOTE 2: For the purposes of this AD, a detailed visual inspection is defined as: "An intensive examination of a specific structural area, system, installation, or assembly to detect damage, failure, or irregularity. Available lighting is normally supplemented with a direct source of good lighting at an intensity deemed appropriate by the inspector. Inspection aids such as mirrors, magnifying lenses, etc. may be used. Surface cleaning and elaborate access procedures may be required."

(b) For certain Model 737-300, -400, and -500 series airplanes on which the actions specified by Boeing Alert Service Bulletin 737-29A1076, dated April 2, 1998, have been accomplished: Within 90 days after the effective date of this AD, perform a one-time detailed visual inspection of wire bundle W0334 and the hydraulic case drain and pressure hoses for the EMDP for hydraulic system "B" to detect any discrepancy (e.g., damage or chafing of wire bundle W0334 and the hydraulic case drain and pressure hoses; and incorrect separation between those components), in accordance with Part 2 of the Accomplishment Instructions of Boeing Alert Service Bulletin 737-29A1076, Revision 1, dated October 21, 1999.

(1) If no discrepancy is found, no further action is required by this paragraph.

(2) If any discrepancy is found, prior to further flight, perform corrective actions in accordance with Part 2 of the Accomplishment Instructions of the alert service bulletin.

Actions for Model 737-600, -700, and -800 Series Airplanes

(c) For certain Model 737-600, -700, and -800 series airplanes on which the actions specified by Boeing Alert Service Bulletin 737-29A1077, dated March 4, 1999, have not been accomplished: Within 90 days after the effective date of this AD, perform a one-time detailed visual inspection of wire bundle W5230 and the hydraulic case drain and pressure hoses for the EMDP for hydraulic system "B" to detect any discrepancy (e.g., damage or chafing of the W5230 wire bundle and the hydraulic case drain and pressure hoses; and incorrect separation between those components), in accordance with Part 1 of the Accomplishment Instructions of Boeing Alert Service Bulletin 737-29A1077, Revision 1, dated October 21, 1999.

(1) If no discrepancy is found, no further action is required by this paragraph.

(2) If any discrepancy is found, prior to further flight, perform corrective actions in accordance with Part 1 of the Accomplishment Instructions of the alert service bulletin.

(d) For certain Model 737-600, -700, and -800 series airplanes on which the actions specified by Boeing Alert Service Bulletin 737-29A1077, dated March 4, 1999, have been accomplished: Within 90 days after the effective date of this AD, perform a one-time detailed visual inspection of wire bundle W5230 and the case drain and pressure hoses for the EMDP for hydraulic system "B" to detect any discrepancy (e.g., damage or chafing of the W5230 wire

bundles and the hydraulic case drain and pressure hoses; and incorrect separation between those components), in accordance with Part 2 of Boeing Alert Service Bulletin 737-29A1077, Revision 1, dated October 21, 1999.

(1) If no discrepancy is found, no further action is required by this paragraph.

(2) If any discrepancy is found, prior to further flight, perform corrective actions in accordance with Part 2 of the Accomplishment Instructions of the alert service bulletin.

Alternative Methods of Compliance

(e) An alternative method of compliance or adjustment of the compliance time that provides an acceptable level of safety may be used if approved by the Manager, Seattle Aircraft Certification Office (ACO), FAA, Transport Airplane Directorate. Operators shall submit their requests through an appropriate FAA Principal Maintenance Inspector, who may add comments and then send it to the Manager, Seattle ACO.

NOTE 3: Information concerning the existence of approved alternative methods of compliance with this AD, if any, may be obtained from the Seattle ACO.

Special Flight Permits

(f) Special flight permits may be issued in accordance with sections 21.197 and 21.199 of the Federal Aviation Regulations (14 CFR 21.197 and 21.199) to operate the airplane to a location where the requirements of this AD can be accomplished.

Incorporation by Reference

(g) The inspection and corrective actions shall be done in accordance with Boeing Alert Service Bulletin 737-29A1076, Revision 1, dated October 21, 1999; or Boeing Alert Service Bulletin 737-29A1077, Revision 1, dated October 21, 1999; as applicable. This incorporation by reference was approved by the Director of the Federal Register in accordance with 5U.S.C. 552(a) and 1 CFR part 51. Copies may be obtained from Boeing Commercial Airplane Group, P.O. Box 3707, Seattle, Washington 98124-2207. Copies may be inspected at the FAA, Transport Airplane Directorate, 1601 Lind Avenue, SW., Renton, Washington; or at the Office of the Federal Register, 800 North Capitol Street, NW., suite 700, Washington, DC.

(h) This amendment becomes effective on January 31, 2000.

FOR FURTHER INFORMATION CONTACT:

Stephen S. Oshiro, Aerospace Engineer, Systems and Equipment Branch, ANM-130S, FAA, Transport Airplane Directorate, Seattle Aircraft Certification Office, 1601 Lind Avenue, SW., Renton, Washington 98055-4056; telephone (425) 227-2793; fax (425) 227-1181.

Issued in Renton, Washington, on January 7, 2000.

Donald L. Riggin, Acting Manager, Transport Airplane Directorate, Aircraft Certification Service.

**AIRBUS INDUSTRIE
AIRWORTHINESS DIRECTIVE
LARGE AIRCRAFT**

2000-01-01 AIRBUS INDUSTRIE: Amendment 39-11498. Docket 99-NM-24-AD.

Applicability: Model A300 B2-1A, B2-1C, B2-203, B2K-3C, B4-103, B4-2C, and B4-203 series airplanes; except those airplanes on which Airbus Modification 10702S20752 (reference Airbus Service Bulletin A300-27-0184, dated August 19, 1996, or Revision 01, dated December 4, 1998) has been accomplished, certificated in any category.

NOTE 1: This AD applies to each airplane identified in the preceding applicability provision, regardless of whether it has been otherwise modified, altered, or repaired in the area subject to the requirements of this AD. For airplanes that have been modified, altered, or repaired so that the performance of the requirements of this AD is affected, the owner/operator must request approval for an alternative method of compliance in accordance with paragraph (b) of this AD. The request should include an assessment of the effect of the modification, alteration, or repair on the unsafe condition addressed by this AD; and, if the unsafe condition has not been eliminated, the request should include specific proposed actions to address it.

Compliance: Required as indicated, unless accomplished previously.

To prevent the electrical connections of the actuators of the green and yellow hydraulic systems for the pitch artificial feel unit from being cross connected due to the design of the wire harness routing, which could result in a stiff elevator control at takeoff, and consequent reduced controllability of the airplane, accomplish the following:

Replacement and Removal

(a) Within 24 months after the effective date of this AD, perform the actions specified in paragraphs (a)(1) and (a)(2) of this AD in accordance with Airbus Service Bulletin A300-27-0184, Revision 01, dated December 4, 1998.

(1) Replace the wire harness routing with a new, improved wire harness routing.

(2) Remove the green and yellow colors from the connectors specified in the service bulletin.

NOTE 2: Accomplishment of the actions in paragraph (a) of this AD in accordance with Airbus Service Bulletin A300-27-0184, dated August 19, 1996, is considered acceptable for compliance with this AD.

Alternative Methods of Compliance

(b) An alternative method of compliance or adjustment of the compliance time that provides an acceptable level of safety may be used if approved by the Manager, International Branch, ANM-116, FAA, Transport Airplane Directorate. Operators shall submit their requests through an appropriate FAA Principal Maintenance Inspector, who may add comments and then send it to the Manager, International Branch, ANM-116.

NOTE 3: Information concerning the existence of approved alternative methods of compliance with this AD, if any, may be obtained from the International Branch, ANM-116.

Special Flight Permits

(c) Special flight permits may be issued in accordance with sections 21.197 and 21.199 of the Federal Aviation Regulations (14 CFR 21.197 and 21.199) to operate the airplane to a location where the requirements of this AD can be accomplished.

Incorporation by Reference

(d) The actions shall be done in accordance with Airbus Service Bulletin A300-27-0184, Revision 01, dated December 4, 1998, which contains the following list of effective pages:

Page Number	Revision Level Shown on Page	Date Shown on Page
1-8	1	December 4, 1998
9-30	Original	August 19, 1996

This incorporation by reference was approved by the Director of the Federal Register in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. Copies may be obtained from Airbus Industrie, 1 Rond Point Maurice Bellonte, 31707 Blagnac Cedex, France. Copies may be inspected at the FAA, Transport Airplane Directorate, 1601 Lind Avenue, SW., Renton, Washington; or at the Office of the Federal Register, 800 North Capitol Street, NW., suite 700, Washington, DC.

NOTE 4: The subject of this AD is addressed in French airworthiness directive 98-447-264(B), dated November 18, 1998.

(e) This amendment becomes effective on February 15, 2000.

FOR FURTHER INFORMATION CONTACT:

Norman B. Martenson, Manager, International Branch, ANM-116, FAA, Transport Airplane Directorate, 1601 Lind Avenue, SW., Renton, Washington 98055-4056; telephone (425) 227-2110; fax(425) 227-1149.

Issued in Renton, Washington, on January 3, 2000.

Donald L. Riggins, Acting Manager, Transport Airplane Directorate, Aircraft Certification Service.

**RAYTHEON AIRCRAFT COMPANY
AIRWORTHINESS DIRECTIVE
LARGE AIRCRAFT**

2000-01-02 RAYTHEON AIRCRAFT COMPANY (Formerly Beech): Amendment 39-11499.
Docket 99-NM-80-AD.

Applicability: All Model BAe.125 series 1000A and 1000B airplanes and Model Hawker 1000 series airplanes, certificated in any category.

NOTE 1: This AD applies to each airplane identified in the preceding applicability provision, regardless of whether it has been modified, altered, or repaired in the area subject to the requirements of this AD. For airplanes that have been modified, altered, or repaired so that the performance of the requirements of this AD is affected, the owner/operator must request approval for an alternative method of compliance in accordance with paragraph (d) of this AD. The request should include an assessment of the effect of the modification, alteration, or repair on the unsafe condition addressed by this AD; and, if the unsafe condition has not been eliminated, the request should include specific proposed actions to address it.

Compliance: Required as indicated, unless accomplished previously.

To prevent the turbine air discharge duct in the air conditioning system from disconnecting from the CAU or water separator in flight, which could result in cabin depressurization, accomplish the following:

Inspections

(a) Within 25 flight hours after the effective date of this AD, perform a general visual inspection to determine the integrity of the duct connections (i.e., ensure that the duct and securing clamps are in place, the sleeve is central to the joint gap, and the clamps are clear of the duct bead) on both ends of the turbine air discharge duct in accordance with Raytheon Service Bulletin SB 21-3108, dated November 1998. If any discrepancy is detected, prior to further flight, adjust the clamps in accordance with the service bulletin.

NOTE 2: For the purposes of this AD, a general visual inspection is defined as: "A visual examination of an interior or exterior area, installation, or assembly to detect obvious damage, failure, or irregularity. This level of inspection is made under normally available lighting conditions such as daylight, hangar lighting, flashlight, or drop-light, and may require removal or opening of access panels or doors. Stands, ladders, or platforms may be required to gain proximity to the area being checked."

(b) Within 300 flight hours or 6 months after the effective date of this AD, whichever occurs first, perform a one time detailed inspection to measure the bead height on the ends of the turbine air discharge duct in accordance with Raytheon Service Bulletin SB 21-3108, dated November 1998. If the bead height does not conform to the dimension shown in the service bulletin, prior to further flight, either rework the duct or replace the duct with a new duct, in accordance with the service bulletin.

NOTE 3: For the purposes of this AD, a detailed inspection is defined as: "An intensive visual examination of a specific structural area, system, installation, or assembly to detect damage, failure, or irregularity. Available lighting is normally supplemented with a direct source of good lighting at intensity deemed appropriate by the inspector. Inspection aids such as mirror, magnifying lenses, etc., may be used. Surface cleaning and elaborate access procedures may be required."

Spares

(c) As of the effective date of this AD, no person shall install a turbine air discharge duct, part number 25-9VF425-1A, on any airplane, unless that duct has been inspected in accordance with Part II of Raytheon Service Bulletin SB 21-3108, dated November 1998.

Alternative Methods of Compliance

(d) An alternative method of compliance or adjustment of the compliance time that provides an acceptable level of safety may be used if approved by the Manager, Wichita Aircraft Certification Office (ACO), FAA, Small Airplane Directorate. Operators shall submit their requests through an appropriate FAA Principal Maintenance Inspector, who may add comments and then send it to the Manager, Wichita ACO.

NOTE 4: Information concerning the existence of approved alternative methods of compliance with this AD, if any, may be obtained from the Wichita ACO.

Special Flight Permits

(e) Special flight permits may be issued in accordance with sections 21.197 and 21.199 of the Federal Aviation Regulations (14 CFR 21.197 and 21.199) to operate the airplane to a location where the requirements of this AD can be accomplished.

Incorporation by Reference

(f) The actions shall be done in accordance with Raytheon Service Bulletin SB 21-3108, dated November 1998. This incorporation by reference was approved by the Director of the Federal Register in accordance with 5 U.S.C. 552(a) and 1CFR part 51. Copies may be obtained from Raytheon Aircraft Company, Manager Service Engineering, Hawker Customer Support Department, P.O. Box 85, Wichita, Kansas 67201-0085. Copies may be inspected at the FAA, Transport Airplane Directorate, 1601 Lind Avenue, SW., Renton, Washington; or at the FAA,

2000-01-02

Small Airplane Directorate, Wichita Aircraft Certification Office, 1801 Airport Road, Room 100, Mid-Continent Airport, Wichita, Kansas; or at the Office of the Federal Register, 800 North Capitol Street, NW., suite 700, Washington, DC.

(g) This amendment becomes effective on February 15, 2000.

FOR FURTHER INFORMATION CONTACT:

Paul C. DeVore, Aerospace Engineer, Systems and Propulsion Branch, ACE-116W, FAA, Small Airplane Directorate, Wichita Aircraft Certification Office, 1801 Airport Road, Room 100, Mid-Continent Airport, Wichita, Kansas 67209; telephone (316) 946-4142; fax (316) 946-4407.

Issued in Renton, Washington, on January 3, 2000.

Donald L. Riggin, Acting Manager, Transport Airplane Directorate, Aircraft Certification Service.

**SAAB AIRCRAFT AB
AIRWORTHINESS DIRECTIVE
LARGE AIRCRAFT**

2000-01-03 SAAB AIRCRAFT AB: Amendment 39-11500. Docket 99-NM-126-AD.

Applicability: Model SAAB 2000 series airplanes, serial numbers 004 through 063 inclusive, certificated in any category.

NOTE 1: This AD applies to each airplane identified in the preceding applicability provision, regardless of whether it has been modified, altered, or repaired in the area subject to the requirements of this AD. For airplanes that have been modified, altered, or repaired so that the performance of the requirements of this AD is affected, the owner/operator must request approval for an alternative method of compliance in accordance with paragraph (d) of this AD. The request should include an assessment of the effect of the modification, alteration, or repair on the unsafe condition addressed by this AD; and, if the unsafe condition has not been eliminated, the request should include specific proposed actions to address it.

Compliance: Required as indicated, unless accomplished previously.

To prevent fatigue failure of the piston in the retract actuator of the main landing gear (MLG) and reduced structural integrity of the MLG, accomplish the following:

Inspection

(a) Within 3 days after the effective date of this AD, perform a measurement of the extension of the piston (ramrod) in the retract actuator of the MLG in accordance with Saab Service Bulletin 2000-A32-052, Revision 01, dated March 16, 1999, including Attachment 1, dated March 16, 1999, and Attachment 2, dated March 1999. If the extension of the piston is less than 0.59 inches (15 millimeters), prior to further flight, perform the action required by either paragraph (b)(1) or (b)(2) of this AD.

Replacement

(b) Prior to the accumulation of 5,000 total flight cycles, or within 2 months after the effective date of this AD, whichever occurs later, accomplish the requirement specified in either paragraph (b)(1) or (b)(2) of this AD in accordance with Saab Service Bulletin 2000-A32-052, Revision 01, dated March 16, 1999, including Attachment 1, dated March 16, 1999, and Attachment 2, dated March 1999. Thereafter, repeat the action required by either paragraph (b)(1) or (b)(2) of this AD at intervals not to exceed 5,000 flight cycles.

- (1) Replace the retract actuator with a repaired retract actuator.
- (2) Replace the piston in the retract actuator with a new piston.

Spares

(c) As of the effective date of this AD, no person shall install on any airplane, a retract actuator, part number (P/N) AIR86482-1 through AIR86482-4 inclusive, unless it has been repaired in accordance with Saab Service Bulletin 2000-A32-052, Revision 01, dated March 16, 1999, including Attachment 1, dated March 16, 1999, and Attachment 2, dated March 1999.

Alternative Methods of Compliance

(d) An alternative method of compliance or adjustment of the compliance time that provides an acceptable level of safety may be used if approved by the Manager, International Branch, ANM-116, FAA, Transport Airplane Directorate. Operators shall submit their requests through an appropriate FAA Principal Maintenance Inspector, who may add comments and then send it to the Manager, International Branch, ANM-116.

NOTE 2: Information concerning the existence of approved alternative methods of compliance with this AD, if any, may be obtained from the International Branch, ANM-116.

Special Flight Permits

(e) Special flight permits may be issued in accordance with sections 21.197 and 21.199 of the Federal Aviation Regulations (14 CFR 21.197 and 21.199) to operate the airplane to a location where the requirements of this AD can be accomplished.

Incorporation by Reference

(f) The actions shall be done in accordance with Saab Service Bulletin 2000-A32-052, Revision 01, dated March 16, 1999, including Attachment 1, dated March 16, 1999, and Attachment 2, dated March 1999, which includes the following list of effective pages:

Page Number	Revision	Level	Shown on	Date Shown on Page
1-10	1, Attachment 1			March 16, 1999
1-3	1, Attachment 2			March 16, 1999
1-5	2			March 1999

2000-01-03

This incorporation by reference was approved by the Director of the Federal Register in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. Copies may be obtained from Saab Aircraft AB, SAAB Aircraft Product Support, S-581.88, Linköping, Sweden. Copies may be inspected at the FAA, Transport Airplane Directorate, 1601 Lind Avenue, SW., Renton, Washington; or at the Office of the Federal Register, 800 North Capitol Street, NW., suite 700, Washington, DC.

NOTE 3: The subject of this AD is addressed in Swedish airworthiness directive SAD No. 1-138, dated March 16, 1999.

(g) This amendment becomes effective on February 16, 2000.

FOR FURTHER INFORMATION CONTACT:

Norman B. Martenson, Manager, International Branch, ANM-116, FAA, Transport Airplane Directorate, 1601 Lind Avenue, SW., Renton, Washington 98055-4056; telephone (425) 227-2110; fax (425) 227-1149.

Issued in Renton, Washington, on January 4, 2000.

Donald L. Riggin, Acting Manager, Transport Airplane Directorate, Aircraft Certification Service.

**SAAB AIRCRAFT AB
AIRWORTHINESS DIRECTIVE
LARGE AIRCRAFT**

2000-01-04 SAAB AIRCRAFT AB: Amendment 39-11501. Docket 99-NM-244-AD.

Applicability: All Model SAAB 2000 series airplanes, certificated in any category.

NOTE 1: This AD applies to each airplane identified in the preceding applicability provision, regardless of whether it has been modified, altered, or repaired in the area subject to the requirements of this AD. For airplanes that have been modified, altered, or repaired so that the performance of the requirements of this AD is affected, the owner/operator must request approval for an alternative method of compliance in accordance with paragraph (b) of this AD. The request should include an assessment of the effect of the modification, alteration, or repair on the unsafe condition addressed by this AD; and, if the unsafe condition has not been eliminated, the request should include specific proposed actions to address it.

Compliance: Required as indicated, unless accomplished previously.

To prevent improper illumination of the ground under the service door due to incorrect installation of the aft exterior light, which could result in injury to the passengers or crew members during an emergency evacuation, accomplish the following:

(a) Within 4 months after the effective date of this AD, perform a one-time general visual inspection of the aft exterior light to verify proper orientation, in accordance with Saab Service Bulletin 2000-33-016, dated April 21, 1999.

(1) If the aft exterior light is correctly installed, as specified in the service bulletin, reinstall the lens in accordance with the service bulletin.

(2) If the aft exterior light is incorrectly installed, as specified in the service bulletin, prior to further flight, correct the orientation of the aft exterior light in accordance with the service bulletin.

NOTE 2: For the purposes of this AD, a general visual inspection is defined as: "A visual examination of an interior or exterior area, installation, or assembly to detect obvious damage, failure, or irregularity. This level of inspection is made under normally available lighting conditions such as daylight, hangar lighting, flashlight, or drop-light, and may require removal or opening of access panels or doors. Stands, ladders, or platforms may be required to gain proximity to the area being checked."

Alternative Methods of Compliance

(b) An alternative method of compliance or adjustment of the compliance time that provides an acceptable level of safety may be used if approved by the Manager, International Branch, ANM-116, FAA, Transport Airplane Directorate. Operators shall submit their requests through an appropriate FAA Principal Maintenance Inspector, who may add comments and then send it to the Manager, International Branch, ANM-116.

NOTE 3: Information concerning the existence of approved alternative methods of compliance with this AD, if any, may be obtained from the International Branch, ANM-116.

Special Flight Permits

(c) Special flight permits may be issued in accordance with sections 21.197 and 21.199 of the Federal Aviation Regulations (14 CFR 21.197 and 21.199) to operate the airplane to a location where the requirements of this AD can be accomplished.

Incorporation by Reference

(d) The actions shall be done in accordance with Saab Service Bulletin 2000-33-016, dated April 21, 1999. This incorporation by reference was approved by the Director of the Federal Register in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. Copies may be obtained from Saab Aircraft AB, SAAB Aircraft Product Support, S581.88, Linköping, Sweden. Copies may be inspected at the FAA, Transport Airplane Directorate, 1601 Lind Avenue, SW., Renton, Washington; or at the Office of the Federal Register, 800 North Capitol Street, NW., suite 700, Washington, DC.

NOTE 4: The subject of this AD is addressed in Swedish airworthiness directive No. I-140, dated April 21, 1999.

(e) This amendment becomes effective on February 16, 2000.

FOR FURTHER INFORMATION CONTACT:

Norman B. Martenson, Manager, International Branch, ANM-116, FAA, Transport Airplane Directorate, 1601 Lind Avenue, SW., Renton, Washington 98055-4056; telephone (425) 227-2110; fax (425) 227-1149.

Issued in Renton, Washington, on January 4, 2000.

Donald L. Riggins, Acting Manager, Transport Airplane Directorate, Aircraft Certification Service.

**BOMBARDIER INC
AIRWORTHINESS DIRECTIVE
LARGE AIRCRAFT**

2000-01-07 BOMBARDIER, INC. (Formerly de Havilland, Inc.): Amendment 39-11504. Docket 99-NM-357-AD.

Applicability: Model DHC-8-100, -200, and -300 series airplanes, certificated in any category; equipped with Canadian Aviation Products (CAP) horizontal stabilizers having serial numbers CAP 003 through CAP 050 inclusive.

NOTE 1: This AD applies to each airplane identified in the preceding applicability provision, regardless of whether it has been modified, altered, or repaired in the area subject to the requirements of this AD. For airplanes that have been modified, altered, or repaired so that the performance of the requirements of this AD is affected, the owner/operator must request approval for an alternative method of compliance in accordance with paragraph (d) of this AD. The request should include an assessment of the effect of the modification, alteration, or repair on the unsafe condition addressed by this AD; and, if the unsafe condition has not been eliminated, the request should include specific proposed actions to address it.

Compliance: Required as indicated, unless accomplished previously.

To prevent reduced strength capability of the horizontal stabilizer and consequent failure of the horizontal stabilizer, which could result in loss of controllability of the airplane, accomplish the following:

Removal of Skin Sections

(a) Within 2 months after the effective date of this AD, accomplish the requirements of paragraphs (a)(1), (a)(2), and (a)(3) of this AD.

(1) Remove sections of bonded skin (test coupons) from the upper panel P/N 85510026, and the lower skin panel P/N 85510025, of the horizontal stabilizer port and starboard side, at stations Yh77.50-90.90 between stringer number 6 and the rear spar, in accordance with a method approved by the Manager, FAA, Engine and Propeller Directorate, New York Aircraft Certification Office (ACO); and

(2) Mark and send for testing the removed sections of bonded skin to the attention of M. Elliott X3177 or M. Clark X3092, Bombardier Aerospace Mailroom (A.O.G.), 123 Garratt Boulevard, Downsview, Ontario, Canada, M3K-1Y5; and

(3) Repair the areas where the sections of bonded skin were removed, in accordance with a method approved by the Manager, FAA, Engine and Propeller Directorate, New York Aircraft Certification Office (ACO). After the repair, the airplane may be returned to service while awaiting test results.

NOTE 2: The Manager, FAA, Engine and Propeller Directorate, New York ACO, has approved Bombardier Repair Drawing RD8-55-669, Issue 3, dated March 17, 1999, as an acceptable method for accomplishing the actions required by paragraph (a) of this AD. Operators should note that the repair drawing recommends a one-time ultrasonic inspection to detect disbonding on the stringers and doublers of the horizontal stabilizer. However, the approved method of compliance does not require the ultrasonic inspection.

Corrective Actions

(b) Within 30 days following the removal of the sections of bonded skin (test coupons) from the upper and lower skin panels of the horizontal stabilizer, determine the test results and accomplish paragraph (b)(1) or (b)(2) of this AD, as applicable.

(1) For airplanes on which all sections of bonded skin (test coupons) pass the test required by this AD, no further action is required by this AD.

(2) For airplanes on which any section of bonded skin (test coupon) fails the test, prior to further flight, either replace the horizontal stabilizer with a new horizontal stabilizer in accordance with Bombardier Service Bulletin S.B. 8-55-24, dated February 26, 1998, or repair in accordance with a method approved by the Manager, New York ACO.

(c) Model DHC-8-100, -200, and -300 series airplanes, equipped with Canadian Aviation Products (CAP) horizontal stabilizers having serial numbers CAP 003 through CAP 050 inclusive: Passing the test on all sections of bonded skin constitutes terminating action for the repetitive inspections required by AD 98-24-18, amendment 39-10903. Accomplishment of either the replacement or an approved repair, as required by paragraph (b)(2) of this AD, on any airplane on which any section of bonded skin fails the test also constitutes terminating action for the repetitive inspections required by AD 98-24-18, amendment 39-10903.

NOTE 3: Following accomplishment of the requirements of this AD, the horizontal stabilizer remains subject to the normal bonding integrity inspection program, which is performed in accordance with de Havilland Product Support Manual (PSM) 1-8-7.

Alternative Methods of Compliance

(d) An alternative method of compliance or adjustment of the compliance time that provides an acceptable level of safety may be used if approved by the Manager, New York ACO. Operators shall submit their requests through an appropriate FAA Principal Maintenance Inspector, who may add comments and then send it to the Manager, New York ACO.

NOTE 4: Information concerning the existence of approved alternative methods of compliance with this AD, if any, may be obtained from the New York ACO.

Special Flight Permits

(e) Special flight permits may be issued in accordance with sections 21.197 and 21.199 of the Federal Aviation Regulations (14 CFR 21.197 and 21.199) to operate the airplane to a location where the requirements of this AD can be accomplished.

Incorporation by Reference

(f) Except as provided by paragraphs (a)(1) and (a)(3) of this AD, the actions shall be done in accordance with Bombardier Service Bulletin S.B. 8-55-24, dated February 26, 1998, as applicable. This incorporation by reference was approved by the Director of the Federal Register in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. Copies may be obtained from Bombardier, Inc., Bombardier Regional Aircraft Division, Garratt Boulevard, Downsview, Ontario M3K 1Y5, Canada. Copies may be inspected at the FAA, Transport Airplane Directorate, 1601 Lind Avenue, SW., Renton, Washington; or at the FAA, Engine and Propeller Directorate, New York Aircraft Certification Office, 10 Fifth Street, Third Floor, Valley Stream, New York; or at the Office of the Federal Register, 800 North Capitol Street, NW., suite 700, Washington, DC.

NOTE 5: The subject of this AD is addressed in Canadian airworthiness directive CF-99-15R1, dated December 6, 1999.

(g) This amendment becomes effective on January 27, 2000.

FOR FURTHER INFORMATION CONTACT:

Serge Napoleon, Aerospace Engineer, Airframe and Propulsion Branch, ANE-171, FAA, Engine and Propeller Directorate, New York Aircraft Certification Office, 10 Fifth Street, Third Floor, Valley Stream, New York 11581; telephone (516) 256-7512; fax (516) 568-2716.

Issued in Renton, Washington, on January 4, 2000.

Donald L. Riggin, Acting Manager, Transport Airplane Directorate, Aircraft Certification Service.

**BRITISH AEROSPACE REGIONAL AIRCRAFT
AIRWORTHINESS DIRECTIVE
LARGE AIRCRAFT**

2000-01-08 BRITISH AEROSPACE REGIONAL AIRCRAFT [Formerly Jetstream Aircraft Limited; British Aerospace (Commercial Aircraft) Limited]: Amendment 39-11505. Docket 99-NM-177-AD.

Applicability: All BAe Model ATP airplanes, certificated in any category.

NOTE 1: This AD applies to each airplane identified in the preceding applicability provision, regardless of whether it has been modified, altered, or repaired in the area subject to the requirements of this AD. For airplanes that have been modified, altered, or repaired so that the performance of the requirements of this AD is affected, the owner/operator must request approval for an alternative method of compliance in accordance with paragraph (b) of this AD. The request should include an assessment of the effect of the modification, alteration, or repair on the unsafe condition addressed by this AD; and, if the unsafe condition has not been eliminated, the request should include specific proposed actions to address it.

Compliance: Required as indicated, unless accomplished previously.

To prevent uncommanded engagement of the rudder standby control system (SCS), accomplish the following:

(a) Within one year after the effective date of this AD, perform a one-time general visual inspection of the orientation of the bolts in the rudder SCS, in accordance with British Aerospace Service Bulletin ATP-27-86, dated May 15, 1999. If any bolt is incorrectly installed, as specified by Figure 1 of the service bulletin, prior to further flight, remove and reinstall the bolt in accordance with the service bulletin.

NOTE 2: For the purposes of this AD, a general visual inspection is defined as: "A visual examination of an interior or exterior area, installation, or assembly to detect obvious damage, failure, or irregularity. This level of inspection is made under normally available lighting conditions such as daylight, hangar lighting, flashlight, or drop-light, and may require removal or opening of access panels or doors. Stands, ladders, or platforms may be required to gain proximity to the area being checked."

Alternative Methods of Compliance

(b) An alternative method of compliance or adjustment of the compliance time that provides an acceptable level of safety may be used if approved by the Manager, International Branch, ANM-116, FAA, Transport Airplane Directorate. Operators shall submit their requests through an appropriate FAA Principal Maintenance Inspector, who may add comments and then send it to the Manager, International Branch, ANM-116.

NOTE 3: Information concerning the existence of approved alternative methods of compliance with this AD, if any, may be obtained from the International Branch, ANM-116.

Special Flight Permits

(c) Special flight permits may be issued in accordance with sections 21.197 and 21.199 of the Federal Aviation Regulations (14 CFR 21.197 and 21.199) to operate the airplane to a location where the requirements of this AD can be accomplished.

Incorporation by Reference

(d) The actions shall be done in accordance with British Aerospace Service Bulletin ATP-27-86, dated May 15, 1999. This incorporation by reference was approved by the Director of the Federal Register in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. Copies may be obtained from British Aerospace Regional Aircraft American Support, 13850 Mclearen Road, Herndon, Virginia 20171. Copies may be inspected at the FAA, Transport Airplane Directorate, 1601 Lind Avenue, SW., Renton, Washington; or at the Office of the Federal Register, 800 North Capitol Street, NW., suite 700, Washington, DC.

NOTE 4: The subject of this AD is addressed in British airworthiness directive 005-05-99.

(e) This amendment becomes effective on February 16, 2000.

FOR FURTHER INFORMATION CONTACT:

Norman B. Martenson, Manager, International Branch, ANM-116, FAA, Transport Airplane Directorate, 1601 Lind Avenue, SW., Renton, Washington 98055-4056; telephone (425) 227-2110; fax (425) 227-1149.

Issued in Renton, Washington, on January 4, 2000.

Donald L. Riggan, Acting Manager, Transport Airplane Directorate, Aircraft Certification Service.

**GENERAL ELECTRIC AIRCRAFT ENGINES
AIRWORTHINESS DIRECTIVE
ENGINE
LARGE AIRCRAFT**

2000-01-09 General Electric Aircraft Engines (GEAE): Amendment 39-11506. Docket 99-NE-58-AD.

Applicability: CJ610 series turbojet and CF700 series turbofan engines, with parts listed by part number (P/N) and serial number (SN) in Appendix 1, installed. These engines are installed on, but not limited to, the Dassault-Aviation Fan Jet Falcon 20 series, Sabreliner NA265 series, Learjet 20 series, Israel Aircraft Industries Westwind series, Hansa Jet, Aero Commander, and Jet Commander.

Appendix 1

PART NUMBER	PART NAME	SERIAL NUMBER
3007T98G01	Shaft, compressor drive	HPCTQA11693
3007T98G01	Shaft, compressor drive	HPCTQA11929
3007T98G01	Shaft, compressor drive	HPCTQA1929
3007T98G01	Shaft, compressor drive	HPGTQA9947
3007T98G01	Shaft, compressor drive	TQA14300
37D401014P101	Torque ring, turbine	GGM681
37D401014P101	Torque ring, turbine	GGMCBK1977
37D401014P101	Torque ring, turbine	GGMWZA1230
37D401014P101	Torque ring, turbine	GGMWZA2322
37D401014P101	Torque ring, turbine	GGMWZA4665
37D401014P101	Torque ring, turbine	PMB08403P
37D401014P102	Torque ring, turbine	PMB19204
37D401302P101	Spacer, stage 2	GATI2099WYR
37D401302P101	Spacer, stage 2	GATWZA09656
37D401302P101	Spacer, stage 2	GATWZA10002
37D401302P101	Spacer, stage 2	GATWZA10148
37D401302P101	Spacer, stage 2	GATWZA5419
37D401303P102	Spacer, stage 3	GATCBK02192
37D401303P102	Spacer, stage 3	GATWZA12030
37D401303P102	Spacer, stage 3	GGMWZA1022
37D401303P104	Spacer, stage 3	GATWYR5364
37D401304P104	Spacer, stage 4	GATANWA2378
37D401305P103	Spacer, stage 5	GATANW9528
37D401305P103	Spacer, stage 5	GATANWA7441
37D401305P103	Spacer, stage 5	GATANWA8542
37D401305P103	Spacer, stage 5	GGMANW3172
37D401306P103	Spacer, stage 6	GATANW6380
37D401306P103	Spacer, stage 6	GGMANW2331
37D401306P105	Spacer, stage 6	GATCDY71386
37D401306P105	Spacer, stage 6	GATO7040CDY
37D401307P103	Spacer, stage 7	GAT59653
37D401307P103	Spacer, stage 7	GATANW7170
37D401307P103	Spacer, stage 7	GATANWA7134
37D401307P103	Spacer, stage 7	GGMANW3104
37D401312P101	Disc, stage 2	GATI0156WZA
37D401312P101	Disc, stage 2	GATO8253WZA
37D401312P101	Disc, stage 2	GATWZA3983
37D401312P101	Disc, stage 2	GATWZA6604
37D401312P101	Disc, stage 2	GGMCBK620
37D401312P101	Disc, stage 2	GGMLBA4491
37D401313P101	Disc, stage 3	GATI3249WYI
37D401313P101	Disc, stage 3	GATO7644WZA

PART NUMBER	PART NAME	SERIAL NUMBER
37D401313P101	Disc, stage 3	GATWZA6522
37D401313P101	Disc, stage 3	GATWZA6723
37D401313P101	Disc, stage 3	GGMLBA2102
37D401314P102	Disc, stage4	GAT05572WZA
37D401314P102	Disc, stage 4	GATO4383WZA
37D401314P102	Disc, stage 4	GGMWZA6818
37D401315P101	Disc, stage 5	GAT12406WZA
37D401315P101	Disc, stage 5	GATWZA4753
37D401315P101	Disc, stage 5	GATWZA7093
37D401316P101	Disc, stage 6	GAT10162WZA
37D401316P101	Disc, stage 6	GATWZA4435
37D401316P101	Disc, stage 6	GATWZA7208
37D401316P101	Disc, stage 6	GGMWZA3376
37D401317P101	Disc, stage 7	GAT10013WZA
37D401317P101	Disc, stage 7	GAT13322WZA
37D401317P101	Disc, stage 7	GATI5009WYR
37D401709P101	Disc, stage 8	GATO3900WZA
37D401709P101	Disc, stage 8	GATO5381WZA
37D401709P101	Disc, stage 8	GGMWZA6906
37D401709P101	Disc, stage 8	GGMWZA6942
37E501428P102	Disc and shaft, stage 1	GATI2001WZA
37E501428P102	Disc and shaft, stage 1	GATWZA8639
37E501428P106	Disc and shaft, stage 1	GATO8474WZA
37E501428P106	Disc and shaft, stage 1	GGMWZA3231
4010T01P01	Seal labyrinth, stage 8	JADCSF334P59
4010T01P01	Seal labyrinth, stage 8	JADCSF5222
4010T01P01	Seal labyrinth, stage 8	JADCSF5444P21
4010T01P01	Seal labyrinth, stage 8	JADMCI3214
4036T24P01	Turbine wheel, stage 2	GATWYR14035
4036T24P01	Turbine wheel, stage 2	GATWYR14655
5013T79P01	Disc, stage 5	GATI1679WZA
5013T82P01	Disc, stage 7	GATI7662WYR
5013T88P01	Spacer, stage 4	GAT69935
5013T88P01	Spacer, stage 4	GATCDY66715
5013T89P01	Spacer, stage 5	GAT60180CDY
5013T90P01	Spacer, stage 7	GAT81678CDY
5013T90P01	Spacer, stage 7	GATCDY82036
5018T16P01	Disc, stage 4	GAT12222WYR
6028T44P01	Turbine wheel, stage 1	GAT11900
6028T44P01	Turbine wheel, stage 1	GAT13094
6028T44P01	Turbine wheel, stage 1	GAT14749
6028T44P01	Turbine wheel, stage 1	GAT15160
6028T44P01	Turbine wheel, stage 1	GAT15396WYR
6028T44P01	Turbine wheel, stage 1	GAT15703
6028T44P01	Turbine wheel, stage 1	GAT15821
6028T44P01	Turbine wheel, stage 1	GAT15899
6028T44P01	Turbine wheel, stage 1	GAT59743
6028T44P01	Turbine wheel, stage 1	GAT60190
6028T44P01	Turbine wheel, stage 1	GAT60197
6028T44P01	Turbine wheel, stage 1	GAT60483
6028T44P01	Turbine wheel, stage 1	GAT7321
6028T44P01	Turbine wheel, stage 1	GATA8475

PART NUMBER	PART NAME	SERIAL NUMBER
6028T44P01	Turbine wheel, stage 1	GATA8492
6028T44P01	Turbine wheel, stage 1	GATAJ204
6028T44P01	Turbine wheel, stage 1	GATB6925
6028T44P01	Turbine wheel, stage 1	GATBE998
6028T44P01	Turbine wheel, stage 1	GATE2150
6028T44P01	Turbine wheel, stage 1	GATE2259
6028T44P01	Turbine wheel, stage 1	GATE2291
6028T44P01	Turbine wheel, stage 1	GATE2336
6028T44P01	Turbine wheel, stage 1	GATF4496
6028T44P01	Turbine wheel, stage 1	GATF4507
6028T44P01	Turbine wheel, stage 1	GATFE953
6028T44P01	Turbine wheel, stage 1	GATG6470
6028T44P01	Turbine wheel, stage 1	GATV6541
6028T44P01	Turbine wheel, stage 1	GATV6588
6028T44P01	Turbine wheel, stage 1	GATW1573
634E583P04	Turbine wheel, stage 1	GATWZA4994
634E583P5	Turbine wheel, stage 1	GAT10650
634E583P5	Turbine wheel, stage 1	GAT13048
646C596P2	Turbine wheel, stage 2	GATCBK01912
646C596P2	Turbine wheel, stage 2	GATWYR12725
* 646C596P2	Turbine wheel, stage 2	GATWZA9723
* 646C594P2	Turbine wheel, stage 2	GATWZA9723
* 646C594P1	Turbine wheel, stage 2	GATWZA9723
841B690P7	Assy, Turbine wheel, stage 1	GAT9383WZA
841B690P7	Assy, Turbine wheel, stage 1	GATMKF07225
841B690P7	Assy, Turbine wheel, stage 1	GATWYR12358
841B690P7	Assy, Turbine wheel, stage 1	GATWYR13457
841B690P7	Assy, Turbine wheel, stage 1	GATWYR13677
841B690P7	Assy, Turbine wheel, stage 1	GATWZA8110
841B690P7	Assy, Turbine wheel, stage 1	GATWZA8263
841B690P7	Assy, Turbine wheel, stage 1	GATWZA9182
841B690P7	Assy, Turbine wheel, stage 1	OJL0145
841B690P7	Assy, Turbine wheel, stage 1	WDBMKF07219

* The FAA has determined that up to three Stage 2 Turbine wheels, SN GATWZA9723, may have been distributed with three different P/N's. Therefore, while only P/N 646C596P1 is an approved P/N for the CJ610 and CF700 model engine, all three part numbers are listed.

Note 1: This airworthiness directive (AD) applies to each engine identified in the preceding applicability provision, regardless of whether it has been modified, altered, or repaired in the area subject to the requirements of this AD. For engines that have been modified, altered, or repaired so that the performance of the requirements of this AD is affected, the owner/operator must request approval for an alternative method of compliance in accordance with paragraph (b) of this AD. The request should include an assessment of the effect of the modification, alteration, or repair on the unsafe condition addressed by this AD; and, if the unsafe condition has not been eliminated, the request should include specific proposed actions to address it.

Compliance: Required as indicated, unless accomplished previously.

To prevent the use of unapproved parts, which could lead to an uncontained engine failure and damage to the airplane, accomplish the following: Replacement of Unapproved Parts

(a) Before further flight after the effective date of this AD, remove any part listed by P/N and SN in Appendix 1 of this AD, and replace it with a serviceable part.

Alternate Methods of Compliance

(b) An alternative method of compliance or adjustment of the compliance time that provides an acceptable level of safety may be used if approved by the Manager, Engine Certification Office (ECO). Operators shall submit their requests through an appropriate FAA Principal Maintenance Inspector, who may add comments and then send it to the Manager, ECO.

Note 2: Information concerning the existence of approved alternative methods of compliance with this airworthiness directive, if any, may be obtained from the ECO.

2000-01-09

Effective Date of This AD

(c) This amendment becomes effective on February 11, 2000.

FOR FURTHER INFORMATION CONTACT:

Kevin Donovan, Aerospace Engineer, Engine Certification Office, FAA, Engine and Propeller Directorate, 12 New England Executive Park, Burlington, MA 01803-5299; telephone (781) 238-7743, fax (781) 238-7199.

Issued in Burlington, Massachusetts, on January 5, 2000.

Jay J. Pardee, Manager, Engine and Propeller Directorate, Aircraft Certification Service.

**BOMBARDIER INC
AIRWORTHINESS DIRECTIVE
LARGE AIRCRAFT**

2000-01-12 BOMBARDIER, INC. (Formerly Canadair): Amendment 39-11510. Docket 98-NM-192-AD. Supersedes AD 97-14-11, Amendment 39-10082.

Applicability: Model CL-600-2B19 (Regional Jet Series 100) series airplanes, serial numbers 7003 through 7185 inclusive; certificated in any category; except those airplanes on which Canadair Regional Jet Service Bulletin 601R-53-046, Revision 'B,' dated December 22, 1997, or Canadair Regional Jet Service Bulletin 601R-53-047, Revision 'D,' including Appendix 1 and Appendix 2, dated December 22, 1997, has been accomplished.

NOTE 1: This AD applies to each airplane identified in the preceding applicability provision, regardless of whether it has been modified, altered, or repaired in the area subject to the requirements of this AD. For airplanes that have been modified, altered, or repaired so that the performance of the requirements of this AD is affected, the owner/operator must request approval for an alternative method of compliance in accordance with paragraph (d)(1) of this AD. The request should include an assessment of the effect of the modification, alteration, or repair on the unsafe condition addressed by this AD; and, if the unsafe condition has not been eliminated, the request should include specific proposed actions to address it.

Compliance: Required as indicated, unless accomplished previously.

To detect and correct fatigue cracking in the underfloor pressure bulkhead of the fuselage, which could result in uncontrolled depressurization of the airplane and/or reduced structural integrity of the fuselage, accomplish the following:

Detailed Visual Inspections

(a) Perform a detailed visual inspection to detect cracks at FS409+128 of the bulkhead web drawing number 601R32208-123 of the fuselage, in accordance with Canadair Regional Jet Alert Service Bulletin A601R-53-045, Revision 'D,' including Appendix 1, dated December 22, 1997, at the time specified in paragraph (a)(1) or (a)(2) of this AD, as applicable, until accomplishment of paragraph (b) or (c) of this AD, as applicable.

(1) For airplanes that have accomplished a detailed visual inspection in accordance with AD 97-14-11 prior to the effective date of this AD: Perform a subsequent detailed visual inspection prior to the accumulation of 1,000 total flight hours, or within 100 flight hours after the immediately preceding inspection accomplished in accordance with AD 97-14-11, whichever occurs later. Thereafter, repeat the inspection at intervals not to exceed 100 flight hours.

(2) For airplanes that have not accomplished a detailed visual inspection in accordance with AD 97-14-11 prior to the effective date of this AD: Perform a detailed visual inspection within 20 flight hours after the effective date of this AD. Perform a subsequent detailed visual inspection prior to the accumulation of 1,000 total flight hours, or within 100 flight hours after accomplishment of the immediately preceding inspection, whichever occurs later. Thereafter, repeat the inspection at intervals not to exceed 100 flight hours.

NOTE 2: For the purposes of this AD, a detailed visual inspection is defined as: "An intensive visual examination of a specific structural area, system, installation, or assembly to detect damage, failure, or irregularity. Available lighting is normally supplemented with a direct source of good lighting at intensity deemed appropriate by the inspector. Inspection aids such as mirror, magnifying lenses, etc. may be used. Surface cleaning and elaborate access procedures may be required."

NOTE 3: Accomplishment of the inspection required by paragraph (a) of this AD, prior to the effective date of this AD in accordance with Canadair Regional Jet Alert Service Bulletin A601R-53-045, dated June 25, 1997; Revision 'A,' including Appendix 1, dated June 26, 1997; Revision 'B,' including Appendix 1, dated June 27, 1997; or Revision 'C,' including Appendix 1, dated July 2, 1997; is considered acceptable for compliance with the applicable action specified by this AD.

Modification

(b) For any airplane on which no cracking has been detected during any inspection required by paragraph (a) of this AD: Within 9 months after the effective date of this AD, modify FS409+128 of the bulkhead web drawing number 601R32208-123 of the fuselage in accordance with Canadair Regional Jet Service Bulletin 601R-53-047, Revision 'D,' including Appendix 1 and Appendix 2, dated December 22, 1997. Accomplishment of this modification terminates the requirements of this AD.

NOTE 4: Any modification accomplished prior to the effective date of this AD in accordance with Canadair Regional Jet Service Bulletin 601R-53-047, including Appendix 1 and Appendix 2, dated July 18, 1997; Revision 'A,' including Appendix 1 and Appendix 2, dated July 31, 1997; Revision 'B,' including Appendix 1 and Appendix 2, dated August 22, 1997; or Revision 'C,' including Appendix 1 and Appendix 2, dated October 7, 1997; is considered acceptable for compliance with the applicable actions required by this AD.

Repair

(c) For any airplane on which any cracking is detected during any inspection required by paragraph (a) of this AD: Prior to further flight, determine the extent of the cracking as specified in Part A of paragraph 2.B. of the

Accomplishment Instructions of Canadair Regional Jet Alert Service Bulletin A601R-53-045, Revision 'D,' including Appendix 1, dated December 22, 1997, and accomplish the requirements of paragraph (c)(1) or (c)(2), as applicable.

(1) If the cracking is within the limits specified by Part A of paragraph 2.B. of the Accomplishment Instructions of the alert service bulletin, accomplish the requirements of paragraphs (c)(1)(i) and (c)(1)(ii) of this AD at the time specified in those paragraphs.

(i) Repeat the detailed visual inspection required by paragraph (a) of this AD thereafter at intervals not to exceed 100 flight hours; and

(ii) Within 6 months after the effective date of this AD, or within 3 months after the initial date the crack was detected, whichever occurs later: Repair the affected area in accordance with Canadair Regional Jet Service Bulletin 601R-53-046, Revision 'B,' dated December 22, 1997. Accomplishment of this repair terminates the requirements of this AD.

NOTE 5: Any repair accomplished prior to the effective date of this AD in accordance with Canadair Regional Jet Service Bulletin 601R-53-046, dated June 27, 1997, or Revision 'A,' dated July 2, 1997, is considered acceptable for compliance with the applicable actions specified by this AD.

(2) If the cracking is outside the limits specified by Part A of the Accomplishment Instructions of the alert service bulletin, prior to further flight, perform a high frequency eddy current (HFEC) inspection to detect cracks of the forward side of the web of fuselage FS409+128 bulkhead web drawing number 601R32208-123, along the upper edge of the horizontal angle part number 601R32208-73, in accordance with Part B of paragraph 2.B. of the Accomplishment Instructions of the alert service bulletin.

(i) If, during any HFEC inspection required by paragraph (c)(2) of this AD, any cracking is detected that is within the limits specified by Part B of paragraph 2.B. of the Accomplishment Instructions of the alert service bulletin, accomplish the requirements of paragraphs (c)(2)(i)(A) and (c)(2)(i)(B) of this AD at the times specified in those paragraphs.

(A) Repeat the HFEC inspection required by paragraph (c)(2) of this AD thereafter at intervals not to exceed 50 flight hours, and repeat the detailed visual inspection required by paragraph (a) of this AD thereafter at interval not to exceed 100 flight hours; and

(B) Within 6 months after the effective date of this AD, or within 3 months after the initial date the crack was detected, whichever occurs later: Repair the affected area in accordance with Canadair Regional Jet Service Bulletin 601R-53-046, Revision 'B,' dated December 22, 1997. Accomplishment of this repair terminates the requirements of this AD.

(ii) If, during any HFEC inspection required by paragraph (c)(2) of this AD, any cracking is detected that is outside the limits specified by Part B of paragraph 2.B. of the Accomplishment Instructions of the alert service bulletin, prior to further flight, determine the extent of the cracking as specified in paragraph 1.D. ("Compliance") of Canadair Regional Jet Service Bulletin 601R-53-046, Revision 'B,' dated December 22, 1997, and accomplish the requirements of paragraph (c)(2)(ii)(A) or (c)(2)(ii)(B) of this AD, as applicable.

(A) If the cracking is within the limits specified by paragraph 1.D. ("Compliance") of the service bulletin, prior to further flight, repair in accordance with the service bulletin. Accomplishment of this repair terminates the requirements of this AD.

(B) If the cracking is outside the limits specified by paragraph 1.D. ("Compliance") of the service bulletin, prior to further flight, repair in accordance with a method approved by the Manager, New York Aircraft Certification Office (ACO).

Alternative Methods of Compliance

(d) (1) An alternative method of compliance or adjustment of the compliance time that provides an acceptable level of safety may be used if approved by the Manager, New York ACO. Operators shall submit their requests through an appropriate FAA Principal Maintenance Inspector, who may add comments and then send it to the Manager, New York ACO.

(2) Alternative methods of compliance, approved previously in accordance with AD 97-14-11, amendment 39-10082, are approved as alternative methods of compliance for this AD.

NOTE 6: Information concerning the existence of approved alternative methods of compliance with this AD, if any, may be obtained from the New York ACO.

Special Flight Permits

(e) Special flight permits may be issued in accordance with sections 21.197 and 21.199 of the Federal Aviation Regulations (14 CFR 21.197 and 21.199) to operate the airplane to a location where the requirements of this AD can be accomplished.

Incorporation by Reference

(f) Except as provided by paragraph (c)(2)(ii)(B) of this AD, the actions shall be done in accordance with Canadair Regional Jet Alert Service Bulletin A601R-53-045, Revision 'D,' including Appendix 1, dated December 22, 1997; Canadair Regional Jet Service Bulletin 601R-53-047, Revision 'D,' including Appendix 1 and Appendix 2, dated December 22, 1997; and Canadair Regional Jet Service Bulletin 601R-53-046, Revision 'B,' dated December 22, 1997; as applicable. This incorporation by reference was approved by the Director of the Federal Register in accordance with

2000-01-12

5 U.S.C. 552(a) and 1 CFR part 51. Copies may be obtained from Bombardier, Inc., Canadair, Aerospace Group, P.O. Box 6087, Station Centre-ville, Montreal, Quebec H3C 3G9, Canada. Copies may be inspected at the FAA, Transport Airplane Directorate, 1601 Lind Avenue, SW., Renton, Washington; or at the FAA, Engine and Propeller Directorate, New York Aircraft Certification Office, 10 Fifth Street, Third Floor, Valley Stream, New York; or at the Office of the Federal Register, 800 North Capitol Street, NW., suite 700, Washington, DC.

NOTE 7: The subject of this AD is addressed in Canadian airworthiness directive CF-97-11R2, dated December 22, 1997.

(g) This amendment becomes effective on February 17, 2000.

FOR FURTHER INFORMATION CONTACT:

George Duckett, Aerospace Engineer, Airframe and Propulsion Branch, ANE-171, FAA, Engine and Propeller Directorate, New York Aircraft Certification Office, 10 Fifth Street, Third Floor, Valley Stream, New York 11581; telephone (516) 256-7525; fax (516) 568-2716.

Issued in Renton, Washington, on January 6, 2000.

Donald L. Riggin, Acting Manager, Transport Airplane Directorate, Aircraft Certification Service.

**PRATT & WHITNEY
AIRWORTHINESS DIRECTIVE
ENGINE
LARGE AIRCRAFT**

2000-01-13 Pratt & Whitney: Amendment 39-11511 Docket No. 98-ANE-47-AD. Supersedes AD 99-08-12, Amendment 39-11118.

Applicability: Pratt & Whitney (PW) JT9D-7, -7A, -7H, -7AH, -7F, -7J, -20, -20J, -59A, -70A, -7Q, -7Q3, -7R4D, -7R4D1, -7R4E, -7R4E1, -7R4E4, -7R4G2, and -7R4H1 series turbofan engines, installed on but not limited to Boeing 747 and 767 series, McDonnell Douglas DC-10 series, and Airbus Industrie A300 and A310 airplanes.

Note 1: This airworthiness directive (AD) applies to each engine identified in the preceding applicability provision, regardless of whether it has been modified, altered, or repaired in the area subject to the requirements of this AD. For engines that have been modified, altered, or repaired so that the performance of the requirements of this AD is affected, the owner/operator must request approval for an alternative method of compliance in accordance with paragraph (c) of this AD. The request should include an assessment of the effect of the modification, alteration, or repair on the unsafe condition addressed by this AD; and, if the unsafe condition has not been eliminated, the request should include specific proposed actions to address it.

Compliance: Required as indicated, unless accomplished previously. For all the fan hubs and HPT disks listed in the following tables, the focused inspections shall be conducted per the applicable documents.

To prevent critical life-limited rotating engine part failure, which could result in an uncontained engine failure and damage to the airplane, accomplish the following:

(a) Within the next 35 days after the effective date of this AD, revise the Engine Time Limits Section (TLS) of the Engine Manual (EM), JT9D Part Numbers 646028, 754459, 770407, 770408, 777210, 785058, 785059, 789328, as indicated below, and for air carrier operations revise as appropriate the approved continuous airworthiness maintenance program, by adding the following:

" MANDATORY INSPECTIONS

(1) Perform inspections of the following parts at each piece-part opportunity in accordance with the instructions provided in the applicable manual provisions:

<u>Engine Model</u>	<u>Part Nomenclature</u>	<u>Engine Manual Part Number</u>	<u>FPI per Manual Section</u>	<u>Inspection</u>
7/7A/7AH/7F 7H/7J/20/20J	All Fan Hubs	646028 (or the equivalent customized versions, 770407 and 770408)	72-31-04	02
7/7A/7AH/7F 7H/7J/20/20J	All HPT 1 st Disks	646028 (or the equivalent customized versions, 770407 and 770408)	72-51-02	01
7/7A/7AH/7F 7H/7J/20/20J	All HPT 2 nd Disks	646028 (or the equivalent customized versions, 770407 and 770408)	72-51-02	03
59A/70A	All Fan Hubs	754459	72-31-00	Heavy Maintenance Check
59A/70A	All HPT 1 st Disks	754459	72-51-02	Heavy Maintenance Check
59A/70A	All HPT 2 nd Disks	754459	72-51-02	Heavy Maintenance Check
7Q/7Q3	All Fan Hubs	777210	72-31-00	03
7Q/7Q3	All HPT 1 st Disks	777210	72-51-06	01
7Q/7Q3	All HPT 2 nd Disks	777210	72-51-07	01
7R4	All Fan Hubs	785058, 785059 and 789328	72-31-00	03
7R4	All HPT 1 st Disks	785058, 785059 and 789328	72-51-06	01

<u>Engine Model</u>	<u>Part Nomenclature</u>	<u>Engine Manual Part Number</u>	<u>FPI per Manual Section</u>	<u>Inspection</u>
7R4	All HPT 2 nd Disks	785058, 785059 and 789328	72-51-07	01

(2) For the purposes of these mandatory inspections, piece-part opportunity means:

(i) The part is considered completely disassembled when done in accordance with the disassembly instructions in the manufacturer's engine manual; and

(ii) The part has accumulated more than 100 cycles in service since the last piece-part opportunity inspection, provided that the part was not damaged or related to the cause for its removal from the engine."

(b) Except as provided in paragraph (c) of this AD, and notwithstanding contrary provisions in section 43.16 of the Federal Aviation Regulations (14 CFR 43.16), these mandatory inspections shall be performed only in accordance with the ALS of the manufacturer's ICA.

(c) An alternative method of compliance or adjustment of the compliance time that provides an acceptable level of safety may be used if approved by the Engine Certification Office (ECO). Operators shall submit their requests through an appropriate FAA Principal Maintenance Inspector (PMI), who may add comments and then send it to the ECO.

Note 2: Information concerning the existence of approved alternative methods of compliance with this airworthiness directive, if any, may be obtained from the ECO.

(d) Special flight permits may be issued in accordance with sections 21.197 and 21.199 of the Federal Aviation Regulations (14 CFR 21.197 and 21.199) to operate the airplane to a location where the requirements of this AD can be accomplished.

(e) FAA-certificated air carriers that have an approved continuous airworthiness maintenance program in accordance with the record keeping requirement of § 121.369 (c) of the Federal Aviation Regulations [14 CFR 121.369 (c)] must maintain records of the mandatory inspections that result from revising the Time Limits Section of the Instructions for Continuous Airworthiness (ICA) and the air carrier's continuous airworthiness program. Alternately, certificated air carriers may establish an approved system of record retention that provides a method for preservation and retrieval of the maintenance records that include the inspections resulting from this AD, and include the policy and procedures for implementing this alternate method in the air carrier's maintenance manual required by § 121.369 (c) of the Federal Aviation Regulations [14 CFR 121.369 (c)]; however, the alternate system must be accepted by the appropriate PMI and require the maintenance records be maintained either indefinitely or until the work is repeated. Records of the piece-part inspections are not required under § 121.380 (a) (2) (vi) of the Federal Aviation Regulations [14 CFR 121.380 (a) (2) (vi)]. All other Operators must maintain the records of mandatory inspections required by the applicable regulations governing their operations.

Note 3: The requirements of this AD have been met when the engine manual changes are made and air carriers have modified their continuous airworthiness maintenance plans to reflect the requirements in the Engine Manuals.

(f) This amendment becomes effective on February 23, 2000.

FOR FURTHER INFORMATION CONTACT:

Wego Wang, Aerospace Engineer, Engine Certification Office, FAA, Engine and Propeller Directorate, 12 New England Executive Park, Burlington, MA 01803-5299; telephone (781) 238-7134, fax (781) 238-7199.

Issued in Burlington, Massachusetts, on January 6, 2000.

Mark C. Fulmer, Acting Manager, Engine and Propeller Directorate, Aircraft Certification Service.

**THE BOEING COMPANY
AIRWORTHINESS DIRECTIVE
LARGE AIRCRAFT**

2000-01-14 BOEING: Amendment 39-11512. Docket 99-NM-58-AD.

Applicability: Model 777 series airplanes, as listed in Boeing Service Bulletin 777-57A0029, Revision 1, dated August 12, 1999; certificated in any category.

NOTE 1: This AD applies to each airplane identified in the preceding applicability provision, regardless of whether it has been modified, altered, or repaired in the area subject to the requirements of this AD. For airplanes that have been modified, altered, or repaired so that the performance of the requirements of this AD is affected, the owner/operator must request approval for an alternative method of compliance in accordance with paragraph (c) of this AD. The request should include an assessment of the effect of the modification, alteration, or repair on the unsafe condition addressed by this AD; and, if the unsafe condition has not been eliminated, the request should include specific proposed actions to address it.

Compliance: Required as indicated, unless accomplished previously.

To prevent corrosion and subsequent fracture of the fuse pins in the main landing gear attachment and support fittings, which could result in collapse of the main landing gear and the loss of the inboard flap and spoilers, accomplish the following:

Replacement

(a) Within 48 months since date of manufacture, or 18 months after the effective date of this AD, whichever occurs later, replace the main landing gear fuse pins with new, improved fuse pins in accordance with Boeing Alert Service Bulletin 777-57A0029, dated December 22, 1998; or Boeing Service Bulletin 777-57A0029, Revision 1, dated August 12, 1999.

Spares

(b) As of the effective date of this AD, no person shall install a main landing gear fuse pin having part number 112W1728-1, 112W1728-3, or 115W1670-1 on any airplane.

Alternative Methods of Compliance

(c) An alternative method of compliance or adjustment of the compliance time that provides an acceptable level of safety may be used if approved by the Manager, Seattle Aircraft Certification Office (ACO), FAA, Transport Airplane Directorate. Operators shall submit their requests through an appropriate FAA Principal Maintenance Inspector, who may add comments and then send it to the Manager, Seattle ACO.

NOTE 2: Information concerning the existence of approved alternative methods of compliance with this AD, if any, may be obtained from the Seattle ACO.

Special Flight Permits

(d) Special flight permits may be issued in accordance with sections 21.197 and 21.199 of the Federal Aviation Regulations (14 CFR 21.197 and 21.199) to operate the airplane to a location where the requirements of this AD can be accomplished.

Incorporation by Reference

(e) The actions shall be done in accordance with Boeing Alert Service Bulletin 777-57A0029, dated December 22, 1998; or Boeing Service Bulletin 777-57A0029, Revision 1, dated August 12, 1999. This incorporation by reference was approved by the Director of the Federal Register in accordance with 5 U.S.C. 552(a) and 1CFR part 51. Copies may be obtained from Boeing Commercial Airplane Group, P.O. Box 3707, Seattle, Washington 98124-2207. Copies may be inspected at the FAA, Transport Airplane Directorate, 1601 Lind Avenue, SW., Renton, Washington; or at the Office of the Federal Register, 800 North Capitol Street, NW., suite 700, Washington, DC.

(f) This amendment becomes effective on February 18, 2000.

FOR FURTHER INFORMATION CONTACT:

Stan Wood, Aerospace Engineer, Airframe Branch, ANM-120S, FAA, Transport Airplane Directorate, Seattle Aircraft Certification Office, 1601 Lind Avenue, SW., Renton, Washington 98055-4056; telephone (425) 227-2772; fax(425) 227-1181.

Issued in Renton, Washington, on January 7, 2000.

Donald L. Riggin, Acting Manager, Transport Airplane Directorate, Aircraft Certification Service.

**FOKKER SERVICES BV
AIRWORTHINESS DIRECTIVE
LARGE AIRCRAFT**

2000-01-15 FOKKER SERVICES B.V.: Amendment 39-11513. Docket 99-NM-318-AD.

Applicability: All Model F27 Mark 050 series airplanes, certificated in any category.

NOTE 1: This AD applies to each airplane identified in the preceding applicability provision, regardless of whether it has been modified, altered, or repaired in the area subject to the requirements of this AD. For airplanes that have been modified, altered, or repaired so that the performance of the requirements of this AD is affected, the owner/operator must request approval for an alternative method of compliance in accordance with paragraph (c) of this AD. The request should include an assessment of the effect of the modification, alteration, or repair on the unsafe condition addressed by this AD; and, if the unsafe condition has not been eliminated, the request should include specific proposed actions to address it.

Compliance: Required as indicated, unless accomplished previously.

To prevent reduced controllability of the airplane as a result of interruption of the anti-skid system function, or inadvertent selection of reverse thrust during a rejected takeoff, accomplish the following:

Modification for Certain Airplanes

(a) For Model F27 Mark 050 series airplanes equipped with Pratt & Whitney Model PW127B engines: Within 12 months after the effective date of this AD, modify the electrical power supply of the landing gear anti-skid unit in accordance with Fokker Service Bulletin SBF50-32-031, dated December 20, 1996.

Airplane Flight Manual Revision and Installation For Certain Airplanes

(b) For Model F27 Mark 050 series airplanes, as listed in Fokker Service Bulletin SBF50-76-016, dated December 20, 1996: Accomplish the actions specified in paragraphs (b)(1) and (b)(2) of this AD.

(1) Within 10 days after the effective date of this AD, revise the Limitations Section of the FAA-approved Airplane Flight Manual (AFM) to include the following statement. This may be accomplished by inserting a copy of this AD in the AFM.

“Correct the ‘available accelerate-stop distance’ as follows:

For **dry runways**, multiply the relevant figure by **0.9**;

For **wet runways**, subtract **525 feet (160 meters)** from the relevant figure; and

For **contaminated and slippery runways**, subtract **1,181 feet (360 meters)** from the relevant figure.

Additionally, the **required** accelerate-stop distance, as calculated from the AFM for a given airplane weight and V_L or V_{stop} must be **increased** in accordance with the same factors given for available accelerate-stop distance, as shown above.”

(2) Within 12 months after the effective date of this AD, install a new ground idle stop assembly and new placards on the top cover of the pedestal, in accordance with Fokker Service Bulletin SBF50-76-016, dated December 20, 1996. Following accomplishment of these actions, the AFM revision required by paragraph (b)(1) of this AD may be removed from the AFM.

Alternative Methods of Compliance

(c) An alternative method of compliance or adjustment of the compliance time that provides an acceptable level of safety may be used if approved by the Manager, International Branch, ANM-116, FAA, Transport Airplane Directorate. Operators shall submit their requests through an appropriate FAA Principal Maintenance Inspector, who may add comments and then send it to the Manager, International Branch, ANM-116.

NOTE 2: Information concerning the existence of approved alternative methods of compliance with this AD, if any, may be obtained from the International Branch, ANM-116.

Special Flight Permits

(d) Special flight permits may be issued in accordance with sections 21.197 and 21.199 of the Federal Aviation Regulations (14 CFR 21.197 and 21.199) to operate the airplane to a location where the requirements of this AD can be accomplished.

Incorporation by Reference

(e) The actions required by paragraph (a) and (b)(2) of this AD shall be done in accordance with Fokker Service Bulletin SBF50-76-016, dated December 20, 1996, and Fokker Service Bulletin SBF50-32-031, dated December 20, 1996; as applicable. This incorporation by reference was approved by the Director of the Federal Register in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. Copies may be obtained from Fokker Services B.V., P.O. Box 231, 2150 AE Nieuw-Vennep, the Netherlands. Copies may be inspected at the FAA, Transport Airplane Directorate, 1601 Lind Avenue, SW., Renton, Washington; or at the Office of the Federal Register, 800 North Capitol Street, NW., suite 700, Washington, DC.

NOTE 3: The subject of this AD is addressed in Dutch airworthiness directives 1996-149 (A), and 1996-150 (A), both dated December 31, 1996.

(f) This amendment becomes effective on January 31, 2000.

FOR FURTHER INFORMATION CONTACT:

Norman B. Martenson, Manager, International Branch, ANM-116, FAA, Transport Airplane Directorate, 1601 Lind Avenue, SW., Renton, Washington 98055-4056; telephone (425) 227-2110; fax (425) 227-1149.

Issued in Renton, Washington, on January 7, 2000.

Donald L. Riggan, Acting Manager, Transport Airplane Directorate, Aircraft Certification Service.

**MCDONNELL DOUGLAS
AIRWORTHINESS DIRECTIVE
LARGE AIRCRAFT**

2000-01-17 MCDONNELL DOUGLAS: Amendment 39-11515. Docket 99-NM-209-AD.

Applicability: Model MD-90 series airplanes, as listed in McDonnell Douglas Service Bulletin MD90-53-004, dated August 20, 1998, certificated in any category.

NOTE 1: This AD applies to each airplane identified in the preceding applicability provision, regardless of whether it has been modified, altered, or repaired in the area subject to the requirements of this AD. For airplanes that have been modified, altered, or repaired so that the performance of the requirements of this AD is affected, the owner/operator must request approval for an alternative method of compliance in accordance with paragraph (b) of this AD. The request should include an assessment of the effect of the modification, alteration, or repair on the unsafe condition addressed by this AD; and, if the unsafe condition has not been eliminated, the request should include specific proposed actions to address it.

Compliance: Required as indicated, unless accomplished previously.

To prevent fatigue cracking of longerons 22 through 26 and the attaching frames, which could result in reduced structural integrity of the fuselage, and consequent loss of pressurization of the airplane, accomplish the following:

Inspection and Modification

(a) Prior to the accumulation of 40,000 total landings, or within 24 months after the effective date of this AD, whichever occurs later: Perform a detailed visual inspection to detect cracking of longerons 22 through 26 (inclusive) and the respective attaching frames at station frames Y=160.000 and Y=200.000 of the left lower nose, in accordance with McDonnell Douglas Service Bulletin MD90-53-004, dated August 20, 1998.

NOTE 2: For the purposes of this AD, a detailed visual inspection is defined as: "An intensive visual examination of a specific structural area, system, installation, or assembly to detect damage, failure, or irregularity. Available lighting is normally supplemented with a direct source of good lighting at intensity deemed appropriate by the inspector. Inspection aids such as mirror, magnifying lenses, etc., may be used. Surface cleaning and elaborate access procedures may be required."

(1) If no cracking is detected: Prior to further flight, install clips and doublers under the longeron flanges and shim the longerons in accordance with the service bulletin.

(2) If any cracking is detected: Prior to further flight, repair the cracks and install clips and doublers under the longeron flanges and shim the longerons in accordance with the service bulletin.

Alternative Methods of Compliance

(b) An alternative method of compliance or adjustment of the compliance time that provides an acceptable level of safety may be used if approved by the Manager, Los Angeles Aircraft Certification Office (ACO), FAA, Transport Airplane Directorate. Operators shall submit their requests through an appropriate FAA Principal Maintenance Inspector, who may add comments and then send it to the Manager, Los Angeles ACO.

NOTE 3: Information concerning the existence of approved alternative methods of compliance with this AD, if any, may be obtained from the Los Angeles ACO.

Special Flight Permits

(c) Special flight permits may be issued in accordance with sections 21.197 and 21.199 of the Federal Aviation Regulations (14 CFR 21.197 and 21.199) to operate the airplane to a location where the requirements of this AD can be accomplished.

Incorporation by Reference

(d) The actions shall be done in accordance with McDonnell Douglas Service Bulletin MD90-53-004, dated August 20, 1998. This incorporation by reference was approved by the Director of the Federal Register in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. Copies may be obtained from Boeing Commercial Aircraft Group, Long Beach Division, 3855 Lakewood Boulevard, Long Beach, California 90846, Attention: Technical Publications Business Administration, Dept. C1-L51 (2-60). Copies may be inspected at the FAA, Transport Airplane Directorate, 1601 Lind Avenue, SW., Renton, Washington; or at the FAA, Transport Airplane Directorate, Los Angeles Aircraft Certification Office, 3960 Paramount Boulevard, Lakewood, California; or at the Office of the Federal Register, 800 North Capitol Street, NW., suite 700, Washington, DC.

(e) This amendment becomes effective on February 23, 2000.

FOR FURTHER INFORMATION CONTACT:

Carl Fountain, Aerospace Engineer, Airframe Branch, ANM-120L; FAA, Los Angeles Aircraft Certification Office, 3960 Paramount Boulevard, Lakewood, California 90712; telephone (562) 627-5222; fax (562) 627-5210.

Issued in Renton, Washington, on January 10, 2000.

Donald L. Rigglin, Acting Manager, Transport Airplane Directorate, Aircraft Certification Service.

**MCDONNELL DOUGLAS
AIRWORTHINESS DIRECTIVE
LARGE AIRCRAFT**

2000-01-18 MCDONNELL DOUGLAS: Amendment 39-11516. Docket 99-NM-217-AD.

Applicability: Model DC-8 series airplanes, as listed in McDonnell Douglas Service Bulletin DC8-57-030, Revision 05, dated April 28, 1998; certificated in any category.

NOTE 1: This AD applies to each airplane identified in the preceding applicability provision, regardless of whether it has been modified, altered, or repaired in the area subject to the requirements of this AD. For airplanes that have been modified, altered, or repaired so that the performance of the requirements of this AD is affected, the owner/operator must request approval for an alternative method of compliance in accordance with paragraph (c) of this AD. The request should include an assessment of the effect of the modification, alteration, or repair on the unsafe condition addressed by this AD; and, if the unsafe condition has not been eliminated, the request should include specific proposed actions to address it.

Compliance: Required as indicated, unless accomplished previously.

To prevent stress corrosion cracking of the lower cap of the wing front spar, which if not corrected, could result in reduced structural integrity of the wing, accomplish the following:

(a) Within 48 months after the effective date of this AD, perform a one-time eddy current conductivity test to determine the material type of the forward tang of the lower cap of the front spar in the center section of the wing, in accordance with McDonnell Douglas Service Bulletin DC8-57-030, Revision 05, dated April 28, 1998, or Revision 04, dated August 17, 1995.

(1) If 7079-T6 aluminum is not found, no further action is required by this AD.

(2) If any 7079-T6 aluminum is found, within 48 months after the effective date of this AD, modify the forward tang of the lower cap of the front spar, in accordance with the service bulletin.

(b) Accomplishment of the eddy current conductivity test, and modification, if necessary, specified in paragraph (a) of this AD constitutes terminating action for the repetitive inspection requirements of paragraph (a) of AD 90-16-05, amendment 39-6614, as it applies to the inspections of the forward tang of the lower cap of the front spar specified in McDonnell Douglas Service Bulletin DC8-57-030, Revision 3, dated December 10, 1970.

Alternative Methods of Compliance

(c) An alternative method of compliance or adjustment of the compliance time that provides an acceptable level of safety may be used if approved by the Manager, Los Angeles Aircraft Certification Office (ACO), FAA, Transport Airplane Directorate. Operators shall submit their requests through an appropriate FAA Principal Maintenance Inspector, who may add comments and then send it to the Manager, Los Angeles ACO.

NOTE 2: Information concerning the existence of approved alternative methods of compliance with this AD, if any, may be obtained from the Los Angeles ACO.

Special Flight Permits

(d) Special flight permits may be issued in accordance with sections 21.197 and 21.199 of the Federal Aviation Regulations (14 CFR 21.197 and 21.199) to operate the airplane to a location where the requirements of this AD can be accomplished.

Incorporation by Reference

(e) The actions shall be done in accordance with McDonnell Douglas Service Bulletin DC8-57-030, Revision 05, dated April 28, 1998, or McDonnell Douglas Service Bulletin DC8-57-030, Revision 04, dated August 17, 1995. This incorporation by reference was approved by the Director of the Federal Register in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. Copies may be obtained from Boeing Commercial Aircraft Group, Long Beach Division, 3855 Lakewood Boulevard, Long Beach, California 90846, Attention: Technical Publications Business Administration, Dept. C1-L51 (2-60). Copies may be inspected at the FAA, Transport Airplane Directorate, 1601 Lind Avenue, SW., Renton, Washington; or at the FAA, Transport Airplane Directorate, Los Angeles Aircraft Certification Office, 3960 Paramount Boulevard, Lakewood, California; or at the Office of the Federal Register, 800 North Capitol Street, NW., suite 700, Washington, DC.

(f) This amendment becomes effective on February 23, 2000.

FOR FURTHER INFORMATION CONTACT: Greg DiLibero, Airframe Branch, ANM-120L, FAA, Transport Airplane Directorate, Los Angeles Aircraft Certification Office, 3960 Paramount Boulevard, Lakewood, California 90712-4137; telephone (562) 627-5231; fax (562) 627-5210.

Issued in Renton, Washington, on January 11, 2000.

Donald L. Riggin, Acting Manager, Transport Airplane Directorate, Aircraft Certification Service.

**BOMBARDIER
AIRWORTHINESS DIRECTIVE
FINAL RULE TO AN EMERGENCY
LARGE AIRCRAFT**

2000-01-51 BOMBARDIER: Amendment 39-11519. Docket 2000-NM-05-AD.

Applicability: CL-604 variant of Canadair Model CL-600-2B16 series airplanes modified in accordance with Supplemental Type Certificate SA8060NM-D, SA8072NM-D, or SA8086NM-D; certificated in any category.

NOTE 1: This AD applies to each airplane identified in the preceding applicability provision, regardless of whether it has been modified, altered, or repaired in the area subject to the requirements of this AD. For airplanes that have been otherwise modified, altered, or repaired so that the performance of the requirements of this AD is affected, the owner/operator must request approval for an alternative method of compliance in accordance with paragraph (b) of this AD. The request should include an assessment of the effect of the modification, alteration, or repair on the unsafe condition addressed by this AD; and, if the unsafe condition has not been eliminated, the request should include specific proposed actions to address it.

Compliance: Required as indicated, unless accomplished previously.

To prevent a fuel fire due to electrical sparks contacting the maintenance light housing of the fuel service panel, accomplish the following:

(a) Within 48 hours after the effective date of this AD, perform the actions specified in paragraphs (a)(1), (a)(2), (a)(3), (a)(4), (a)(5), (a)(6), and (a)(7) of this AD.

(1) Open and lock-out the circuit breaker CB5-B8 located in the aft equipment bay at STA.645L on the JB5 panel.

(2) Open the refuel/defuel door located on the right side of the fuselage at the wing root. Remove the maintenance light receptacle by removing the four screws holding the receptacle to the fairing.

(3) Pull the light receptacle away from the fairing revealing the two wire leads attached to the receptacle.

(4) Disconnect the wires by removing the two screws that attach the wire leads to the light receptacle.

(5) Cap and stow the wires to prevent contact with metal objects within the fairing.

(6) Re-install the light receptacle in the fairing.

(7) Close circuit breaker CB5-B8.

Alternative Methods of Compliance

(b) An alternative method of compliance or adjustment of the compliance time that provides an acceptable level of safety may be used if approved by the Manager, Los Angeles Certification Office (ACO), FAA, Transport Airplane Directorate. Operators shall submit their requests through an appropriate FAA Principal Maintenance Inspector, who may add comments and then send it to the Manager, Los Angeles ACO.

NOTE 2: Information concerning the existence of approved alternative methods of compliance with this AD, if any, may be obtained from the Los Angeles ACO.

Special Flight Permits

(c) Special flight permits may be issued in accordance with sections 21.197 and 21.199 of the Federal Aviation Regulations (14 CFR 21.197 and 21.199) to operate the airplane to a location where the requirements of this AD can be accomplished.

(d) This amendment becomes effective on January 26, 2000, to all persons except those persons to whom it was made immediately effective by emergency AD 2000-01-51, issued on January 7, 2000, which contained the requirements of this amendment.

FOR FURTHER INFORMATION CONTACT:

Abby Malmir, Aerospace Engineer, Systems and Equipment Branch, ANM-130L, FAA, Transport Airplane Directorate, Los Angeles Aircraft Certification Office, 3960 Paramount Boulevard, Lakewood, California 90712-4137; telephone (562) 627-5351; fax (562) 627-5210.

Issued in Renton, Washington, on January 13, 2000.

Donald L. Riggin, Acting Manager, Transport Airplane Directorate, Aircraft Certification Service.

**MCDONNELL DOUGLAS
AIRWORTHINESS DIRECTIVE
LARGE AIRCRAFT**

2000-02-01 MCDONNELL DOUGLAS: Amendment 39-11518. Docket 98-NM-309-AD.

Applicability: Model DC-8 series airplanes, as listed in McDonnell Douglas Service Bulletin DC8-57-100, Revision 01, dated August 26, 1998; certificated in any category.

NOTE 1: This AD applies to each airplane identified in the preceding applicability provision, regardless of whether it has been modified, altered, or repaired in the area subject to the requirements of this AD. For airplanes that have been modified, altered, or repaired so that the performance of the requirements of this AD is affected, the owner/operator must request approval for an alternative method of compliance in accordance with paragraph (b) of this AD. The request should include an assessment of the effect of the modification, alteration, or repair on the unsafe condition addressed by this AD; and, if the unsafe condition has not been eliminated, the request should include specific proposed actions to address it.

Compliance: Required as indicated, unless accomplished previously.

To prevent fatigue cracking of the lower wing skin, which could reduce structural integrity and loss of fail-safe capability of the airplane, accomplish the following:

NOTE 2: This AD will affect Principal Structural Elements (PSE) 57.08.037, 57.08.038, 57.08.021, and 57.08.022 of the DC-8 Supplemental Inspection Document (SID).

Inspection, Repair, and Modification

(a) Within 24 months after the effective date of this AD, perform detailed visual and eddy current inspections to detect cracks in the lower wing skin fastener holes in the area surrounding 3 outboard fasteners of the stringer 64 end fitting, in accordance with McDonnell Douglas Service Bulletin DC8-57-100, Revision 01, dated August 26, 1998.

NOTE 3: For the purposes of this AD, a detailed inspection is defined as: "An intensive visual examination of a specific structural area, system, installation, or assembly to detect damage, failure, or irregularity. Available lighting is normally supplemented with a direct source of good lighting at intensity deemed appropriate by the inspector. Inspection aids such as mirror, magnifying lenses, etc., may be used. Surface cleaning and elaborate access procedures may be required."

(1) If any crack is detected in the skin fastener holes and it is less than 3.1 inches long, prior to further flight, repair in accordance with the service bulletin. Within 14,100 landings after accomplishment of the repair, inspect the lower wing skin to detect cracks, in accordance with a method approved by the Manager, Los Angeles Aircraft Certification Office (ACO), FAA, Transport Airplane Directorate.

(2) If any crack is detected in the skin fastener holes and it is greater than or equal to 3.1 inches long, prior to further flight, repair in accordance with a method approved by the Manager, Los Angeles ACO.

(3) If no crack is found, within 24 months after the effective date of this AD, accomplish the preventative modification (including stress or split sleeve coining the three fastener holes in the skin, and installing new pins), in accordance with the service bulletin. Accomplishment of this action constitutes terminating action for the requirements of this AD.

NOTE 4: This AD does not terminate the inspection requirements for PSE's 57.08.037, 57.08.038, 57.08.021, and 57.08.022 of the DC-8 SID in accordance with AD 93-01-15, amendment 39-6330.

Alternative Methods of Compliance

(b) An alternative method of compliance or adjustment of the compliance time that provides an acceptable level of safety may be used if approved by the Manager, Los Angeles ACO. Operators shall submit their requests through an appropriate FAA Principal Maintenance Inspector, who may add comments and then send it to the Manager, Los Angeles ACO.

NOTE 5: Information concerning the existence of approved alternative methods of compliance with this AD, if any, may be obtained from the Los Angeles ACO.

Special Flight Permits

(c) Special flight permits may be issued in accordance with sections 21.197 and 21.199 of the Federal Aviation Regulations (14 CFR 21.197 and 21.199) to operate the airplane to a location where the requirements of this AD can be accomplished.

Incorporation by Reference

(d) Except as provided by paragraphs (a)(1) and (a)(2) of this AD, the actions shall be done in accordance with McDonnell Douglas Service Bulletin DC8-57-100, Revision 01, dated August 26, 1998. This incorporation by reference was approved by the Director of the Federal Register in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. Copies may be obtained from Boeing Commercial Aircraft Group, Long Beach Division, 3855 Lakewood Boulevard, Long Beach, California 90846, Attention: Technical Publications Business Administration, Dept. C1-L51 (2-60). Copies may be inspected at the FAA, Transport Airplane Directorate, 1601 Lind Avenue, SW., Renton, Washington; or at the FAA, Transport Airplane Directorate, Los Angeles Aircraft Certification Office, 3960 Paramount Boulevard, Lakewood, California; or at the Office of the Federal Register, 800 North Capitol Street, NW., suite 700, Washington, DC.

(e) This amendment becomes effective on February 29, 2000.

FOR FURTHER INFORMATION CONTACT:

Greg DiLibero, Aerospace Engineer, Airframe Branch, ANM-120L, FAA, Transport Airplane Directorate, Los Angeles Aircraft Certification Office, 3960 Paramount Boulevard, Lakewood, California 90712-4137; telephone (562) 627-5231; fax (562) 627-5210.

Issued in Renton, Washington, on January 13, 2000.

Donald L. Riggins, Acting Manager, Transport Airplane Directorate, Aircraft Certification Service.

**SHORT BROTHERS PLC
AIRWORTHINESS DIRECTIVE
LARGE AIRCRAFT**

2000-02-02 SHORT BROTHERS PLC: Amendment 39-11520. Docket 99-NM-223-AD.

Applicability: All Model SD3-60 SHERPA and SD3-SHERPA series airplanes; and Model SD3-30 series airplanes as listed in Shorts Service Bulletin SD330-35-1, dated February 25, 1999; certificated in any category.

NOTE 1: This AD applies to each airplane identified in the preceding applicability provision, regardless of whether it has been modified, altered, or repaired in the area subject to the requirements of this AD. For airplanes that have been modified, altered, or repaired so that the performance of the requirements of this AD is affected, the owner/operator must request approval for an alternative method of compliance in accordance with paragraph (c) of this AD. The request should include an assessment of the effect of the modification, alteration, or repair on the unsafe condition addressed by this AD; and, if the unsafe condition has not been eliminated, the request should include specific proposed actions to address it.

Compliance: Required as indicated, unless accomplished previously.

To prevent the loss of oxygen from the aircraft oxygen system, accomplish the following:

Replacement

(a) Within 24 months after the effective date of this AD, replace oxygen system "O" rings, part number (P/N) MS28778, with improved wear-resistant "O" rings, P/N MS9068, in accordance with Shorts Service Bulletins SD360 Sherpa-35-2, dated February 25, 1999 (for Model SD3-60 Sherpa series airplanes); SD3 Sherpa-35-3, Revision 1, dated May 5, 1999 (for Model SD3 Sherpa series airplanes); and SD330-35-1, dated February 25, 1999 (for Model SD3-30 series airplanes); as applicable.

Spares

(b) As of the effective date of this AD, no person shall install an oxygen system "O" ring, P/N MS28778, on any airplane.

Alternative Methods of Compliance

(c) An alternative method of compliance or adjustment of the compliance time that provides an acceptable level of safety may be used if approved by the Manager, International Branch, ANM-116, FAA, Transport Airplane Directorate. Operators shall submit their requests through an appropriate FAA Principal Maintenance Inspector, who may add comments and then send it to the Manager, International Branch, ANM-116.

NOTE 2: Information concerning the existence of approved alternative methods of compliance with this AD, if any, may be obtained from the International Branch, ANM-116.

Special Flight Permits

(d) Special flight permits may be issued in accordance with sections 21.197 and 21.199 of the Federal Aviation Regulations (14 CFR 21.197 and 21.199) to operate the airplane to a location where the requirements of this AD can be accomplished.

Incorporation by Reference

(e) The actions shall be done in accordance with Shorts Service Bulletin SD3-60 Sherpa-35-2, dated February 25, 1999; Shorts Service Bulletin SD3 Sherpa-35-3, Revision 1, dated May 5, 1999; or Shorts Service Bulletin SD330-35-1, dated February 25, 1999; as applicable. Shorts Service Bulletin SD3 Sherpa-35-3, Revision 1, dated May 5, 1999, contains the following list of effective pages:

Page Number	Revision Level Shown on Page	Date Shown on Page
1, 4, 9, 10	1	May 5, 1999
2, 3, 5-8, 11-14	Original	February 25, 1999

This incorporation by reference was approved by the Director of the Federal Register in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. Copies may be obtained from Short Brothers, Airworthiness & Engineering Quality, P.O. Box 241, Airport Road, Belfast BT3 9DZ, Northern Ireland. Copies may be inspected at the FAA, Transport Airplane Directorate, 1601 Lind Avenue, SW., Renton, Washington; or at the Office of the Federal Register, 800 North Capitol Street, NW., suite 700, Washington, DC.

NOTE 3: The subject of this AD is addressed in British airworthiness directives 007-02-99 (for Model SD3-60 Sherpa series airplanes), 006-02-99 (for Model SD3 Sherpa series airplanes), and 008-02-99 (for Model SD3-30 series airplanes).

(f) This amendment becomes effective on February 29, 2000.

FOR FURTHER INFORMATION CONTACT:

Norman B. Martenson, Manager, International Branch, ANM-116, FAA, Transport Airplane Directorate, 1601 Lind Avenue, SW., Renton, Washington 98055-4056; telephone (425) 227-2110; fax (425) 227-1149.

Issued in Renton, Washington, on January 14, 2000.

Donald L. Riggan, Acting Manager, Transport Airplane Directorate, Aircraft Certification Service.

**THE BOEING COMPANY
AIRWORTHINESS DIRECTIVE
LARGE AIRCRAFT**

2000-02-03 BOEING: Amendment 39-11521. Docket 98-NM-351-AD.

Applicability: Model 737-300, -400, and -500 series airplanes; line numbers 1001 through 3063 inclusive; certificated in any category.

NOTE 1: This AD applies to each airplane identified in the preceding applicability provision, regardless of whether it has been modified, altered, or repaired in the area subject to the requirements of this AD. For airplanes that have been modified, altered, or repaired so that the performance of the requirements of this AD is affected, the owner/operator must request approval for an alternative method of compliance in accordance with paragraph (c) of this AD. The request should include an assessment of the effect of the modification, alteration, or repair on the unsafe condition addressed by this AD; and, if the unsafe condition has not been eliminated, the request should include specific proposed actions to address it.

Compliance: Required as indicated, unless accomplished previously.

To prevent fatigue cracking of the rod ends on the leading edge slat actuators, which could result in uncommanded deployment of the wing leading edge slat and consequent reduced controllability of the airplane, accomplish the following:

Replacement

(a) Within 24 months after the effective date of this AD: Replace the leading edge slat actuator with an actuator that has a new rod end, or replace the rod end on the existing slat actuator with a new rod end, at slat positions 1, 2, 5, and 6; in accordance with the Accomplishment Instructions in Boeing Alert Service Bulletin 737-27A1211, dated November 19, 1998, or Revision 1, dated December 9, 1999.

Spares

(b) As of the effective date of this AD, no person shall install any part having a part number identified in the "Existing Part Number" column of Section 2.E. of Boeing Alert Service Bulletin 737-27A1211, dated November 19, 1998, on any airplane.

Alternative Methods of Compliance

(c) An alternative method of compliance or adjustment of the compliance time that provides an acceptable level of safety may be used if approved by the Manager, Seattle Aircraft Certification Office (ACO), FAA, Transport Airplane Directorate. Operators shall submit their requests through an appropriate FAA Principal Maintenance Inspector, who may add comments and then send it to the Manager, Seattle ACO.

NOTE 2: Information concerning the existence of approved alternative methods of compliance with this AD, if any, may be obtained from the Seattle ACO.

Special Flight Permits

(d) Special flight permits may be issued in accordance with sections 21.197 and 21.199 of the Federal Aviation Regulations (14 CFR 21.197 and 21.199) to operate the airplane to a location where the requirements of this AD can be accomplished.

Incorporation by Reference

(e) The actions shall be done in accordance with Boeing Alert Service Bulletin 737-27A1211, dated November 19, 1998; or Boeing Alert Service Bulletin 737-27A1211, Revision 1, dated December 9, 1999. This incorporation by reference was approved by the Director of the Federal Register in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. Copies may be obtained from Boeing Commercial Airplane Group, P.O. Box 3707, Seattle, Washington 98124-2207. Copies may be inspected at the FAA, Transport Airplane Directorate, 1601 Lind Avenue, SW., Renton, Washington; or at the Office of the Federal Register, 800 North Capitol Street, NW., suite 700, Washington, DC.

(f) This amendment becomes effective on February 29, 2000.

FOR FURTHER INFORMATION CONTACT:

Robert C. Jones, Aerospace Engineer, Systems and Equipment Branch, ANM-130S, FAA, Transport Airplane Directorate, Seattle Aircraft Certification Office, 1601 Lind Avenue SW., Renton, Washington 98055-4056; telephone (425) 227-1118; fax (425) 227-1181.

Issued in Renton, Washington, on January 18, 2000.

Donald L. Riggan, Acting Manager, Transport Airplane Directorate, Aircraft Certification Service

**AIRBUS INDUSTRIE
AIRWORTHINESS DIRECTIVE
LARGE AIRCRAFT**

2000-02-04 AIRBUS INDUSTRIE: Amendment 39-11522. Docket 2000-NM-09-AD.

Applicability: Airbus Model A300 series airplanes, having manufacturer's serial number 159, 168, 188, 202, 205, 213, 299, or 302; and all Model A300-600 and A310 series airplanes; certificated in any category.

NOTE 1: This AD applies to each airplane identified in the preceding applicability provision, regardless of whether it has been modified, altered, or repaired in the area subject to the requirements of this AD. For airplanes that have been modified, altered, or repaired so that the performance of the requirements of this AD is affected, the owner/operator must request approval for an alternative method of compliance in accordance with paragraph (c) of this AD. The request should include an assessment of the effect of the modification, alteration, or repair on the unsafe condition addressed by this AD; and, if the unsafe condition has not been eliminated, the request should include specific proposed actions to address it.

Compliance: Required as indicated, unless accomplished previously.

To prevent a sudden change in pitch due to an out-of-trim condition combined with an autopilot disconnect, which could result in reduced controllability of the airplane, accomplish the following:

Pitch Trim System Test

(a) Within 20 days after the effective date of this AD: Perform a pitch trim system test to detect any continuity defect in the autotrim function, in accordance with All Operators Telex (AOT) A300-22A0115 (for Model A300 series airplanes), A300-600-22A6042 (for Model A300-600 series airplanes), or A310-22A2053 (for Model A310 series airplanes), all dated December 23, 1999, as applicable.

(1) If no continuity defect is found, no further action is required by this paragraph.

Corrective Actions

(2) If any continuity defect is found, prior to further flight, accomplish the actions required by paragraphs (a)(2)(i) and (a)(2)(ii) of this AD, in accordance with the applicable AOT.

(i) Repair any discrepant wiring found in the pitch trim system.

(ii) Repeat the initial pitch trim system test required by paragraph (a) of this AD.

NOTE 2: All Operators Telexes (AOT) A300-22A0115, A300-600-22A6042, and A310-22A2053, all dated December 23, 1999, reference Aircraft Schematic Manual (ASM) 22-27-00 as an additional source of service information to accomplish the repair.

Reporting Requirement

(b) Within 10 days after accomplishing the pitch trim system test required by this AD, or within 10 days after the effective date of this AD, whichever occurs later: Submit a report of the inspection results (both positive and negative findings) to Airbus Customer Services, Engineering and Technical Support, Attention Mr. Vincent Frayssinet, AI/SE-E43; phone number 33 (0)5.62.11.04.96; Sita Code TLSBQ7X.

Alternative Methods of Compliance

(c) An alternative method of compliance or adjustment of the compliance time that provides an acceptable level of safety may be used if approved by the Manager, International Branch, ANM-116, FAA, Transport Airplane Directorate. Operators shall submit their requests through an appropriate FAA Principal Maintenance Inspector, who may add comments and then send it to the Manager, International Branch, ANM-116.

NOTE 3: Information concerning the existence of approved alternative methods of compliance with this AD, if any, may be obtained from the International Branch, ANM-116.

Special Flight Permits

(d) Special flight permits may be issued in accordance with sections 21.197 and 21.199 of the Federal Aviation Regulations (14 CFR 21.197 and 21.199) to operate the airplane to a location where the requirements of this AD can be accomplished.

Incorporation by Reference

(e) The actions shall be done in accordance with Airbus All Operators Telex A300-22A0115, dated December 23, 1999; Airbus All Operators Telex A300-600-22A6042, dated December 23, 1999; or Airbus All Operators Telex A310-22A2053, dated December 23, 1999; as applicable. This incorporation by reference was approved by the Director of the Federal Register in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. Copies may be obtained from Airbus Industrie, 1 Rond Point Maurice Bellonte, 31707 Blagnac Cedex, France. Copies may be inspected at the FAA, Transport Airplane Directorate, 1601 Lind Avenue, SW., Renton, Washington; or at the Office of the Federal Register, 800 North Capitol Street, NW., suite 700, Washington, DC.

NOTE 4: The subject of this AD is addressed in French airworthiness directive T2000-007-301(B), dated January 4, 2000.

(f) This amendment becomes effective on February 9, 2000.

FOR FURTHER INFORMATION CONTACT:

Norman B. Martenson, Manager, International Branch, ANM-116, FAA, Transport Airplane Directorate, 1601 Lind Avenue, SW., Renton, Washington 98055-4056; telephone (425) 227-2110; fax (425) 227-1149.

Issued in Renton, Washington, on January 18, 2000.

Donald L. Riggins, Acting Manager, Transport Airplane Directorate, Aircraft Certification Service.

**BOMBARDIER
AIRWORTHINESS DIRECTIVE
LARGE AIRCRAFT**

2000-02-13 DE HAVILLAND: Amendment 39-11531. Docket 98-NM-179-AD.

Applicability: All Model DHC-8-100, -200, and -300 series airplanes, certificated in any category.

NOTE 1: This AD applies to each airplane identified in the preceding applicability provision, regardless of whether it has been modified, altered, or repaired in the area subject to the requirements of this AD. For airplanes that have been modified, altered, or repaired so that the performance of the requirements of this AD is affected, the owner/operator must request approval for an alternative method of compliance in accordance with paragraph (d) of this AD. The request should include an assessment of the effect of the modification, alteration, or repair on the unsafe condition addressed by this AD; and, if the unsafe condition has not been eliminated, the request should include specific proposed actions to address it.

Compliance: Required as indicated, unless accomplished previously.

To prevent positioning of the power levers below the flight idle stop during flight, which could cause engine overspeed, possible engine damage or failure, and consequent reduced controllability of the airplane, accomplish the following:

(a) Within 30 days after the effective date of this AD, install a placard in a prominent location on the instrument panel of the cockpit that states:

“Positioning of the power levers below the flight idle stop during flight is prohibited. Such positioning may lead to loss of airplane control, or may result in an engine overspeed condition and consequent loss of engine power.”

(b) Within 2 years after the effective date of this AD, install a system that would prevent positioning the power levers below the flight idle stop during flight, in accordance with a method approved by the Manager, New York Aircraft Certification Office (ACO), FAA, Engine and Propeller Directorate. Following accomplishment of that installation, the placard required by paragraph (a) of this AD may be removed.

(c) In the event that the system required by paragraph (b) of this AD malfunctions, or if the use of an override (if installed) is necessary, the airplane may be operated for three days to a location where required maintenance/repair can be performed, provided the system required by paragraph (b) of this AD has been properly deactivated and placarded for flightcrew awareness, in accordance with the FAA-approved Master Minimum Equipment List (MMEL).

(d) An alternative method of compliance or adjustment of the compliance time that provides an acceptable level of safety may be used if approved by the Manager, New York ACO. Operators shall submit their requests through an appropriate FAA Principal Maintenance Inspector, who may add comments and then send it to the Manager, New York ACO.

NOTE 2: Information concerning the existence of approved alternative methods of compliance with this AD, if any, may be obtained from the New York ACO.

(e) Special flight permits may be issued in accordance with sections 21.197 and 21.199 of the Federal Aviation Regulations (14 CFR 21.197 and 21.199) to operate the airplane to a location where the requirements of this AD can be accomplished.

(f) This amendment becomes effective on March 1, 2000.

FOR FURTHER INFORMATION CONTACT:

James E. Delisio, Aerospace Engineer, Airframe and Propulsion Branch, ANE-171, FAA, Engine and Propeller Directorate, New York Aircraft Certification Office, 10 Fifth Street, Third Floor, Valley Stream, New York 11581; telephone (516) 256-7521; fax (516) 568-2716.

Issued in Renton, Washington, on January 20, 2000.

Donald L. Riggan, Acting Manager, Transport Airplane Directorate, Aircraft Certification Service.